USER'S MANUAL

Analytics on Demand (AOD)

Gale, a part of Cengage Learning

September, 2015, v3.1

Revision Sheet

Release No.	Date	Revision Description
Rev. 1	7/7/14	AOD User's Manual Initial Release
Rev. 1a	7/8/14	Minor screen image changes and corrections
Rev. 1b	7/28/14	Copy edits/formatting
Rev. 2	11/24/14	New AOD site; revisions to existing apps; Marketing Action apps added
Rev 2.1	12/8/14	Addition of section 2.5
Rev 2.2	12/18/14	Addition of Marketing Action input requirements to section 2.5
Rev 3	3/20/15	Addition of Branch Insights/Patron Voter Analysis/Additional free apps
Rev 3.1	9/18/15	Brought all apps up to date with recent user interface changes

AOD USER'S MANUAL

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1.0 GENERAL INFORMATION

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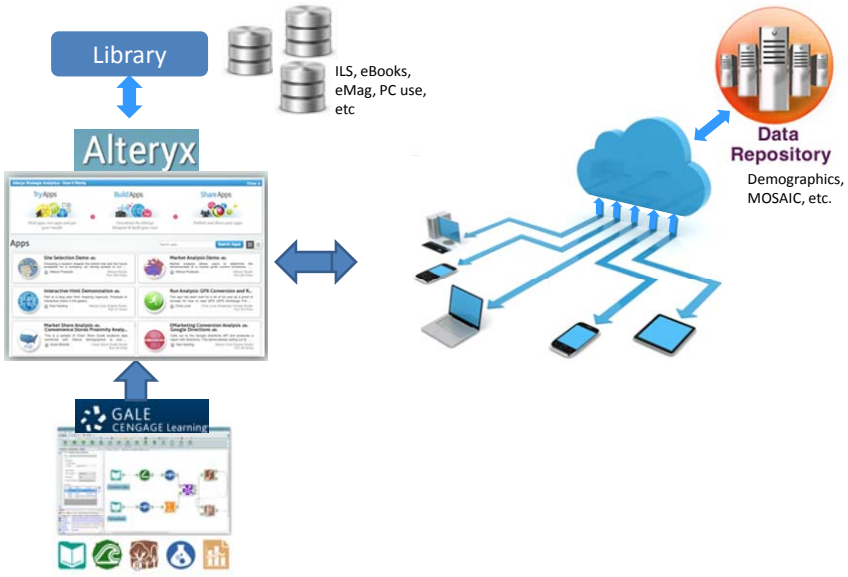
1.1 System Overview

Analytics on Demand (AOD) is a web-based access product, whereby a library subscribes to specific software applications (hereafter referred to as "apps") to analyze data extracted from electronic platforms used at their library. These platforms can be their Integrated Library System (ILS), their eBook platform(s) like OverDrive and/or 3M, their periodical platform (Zinio), or any other electronic platform that data can be extracted from.

Access to AOD is through the Analytics Gallery via a username/password. Once users log in, they can access apps that they subscribe to and execute them by uploading data files to the apps. The data files are transmitted to the cloud via an encrypted data channel, blended with external data, and analyzed, with the output in the form of an executive-style report, complete with tables, charts, and graphs; the report can be downloaded to Excel for further manipulation. These reports can be run in a multitude of variations, based on an individual library's need. There is no requirement to clean the data before it is uploaded in the app, nor is it necessary to send sensitive data outside of the library. Once the app completes, the original data file used is automatically deleted. This process is illustrated in Figure 1.

Figure 1. Analytics on Demand Network Diagram



1.2 Points of Contact

1.2.1 Customer Care

As a user of online resources from Gale, part of Cengage Learning, you are provided with an unparalleled level of personalized service and support at no extra cost to your library. Your Customer Care Consultant is with you every step of the way. Gale Customer Care is available to answer questions about:

- Running AOD apps
- Sample data sets initially validated at setup
- Training

Contact Gale Customer Care at:

- gale.customercare@cengage.com
- Or, email or call your Customer Care Consultant directly

1.2.2 Technical Support

Gale's Technical Support is available for phone support 24 hours a day.

Reach Gale Technical Support at:

- 1-800-877-4253, option 4
- gale.technicalsupport@cengage.com

For additional resources and information, visit: http://support.gale.com/

1.3 Organization of the AOD User Guide

The AOD User Guide is organized into five major sections. The first section is ***General Information.*** The second section, ***Getting Started***, provides an overview of all administrative tasks and a general overview of the system. Sections Three through Seven are devoted to each AOD app.

1.4 Acronyms and Abbreviations

The following acronyms and abbreviations are used in this document:

- **AOD** – Analytics on Demand
- **CBSA** – Core Based Statistical Area
- **ILS** – Integrated Library System
- **LMS** – Library Management System

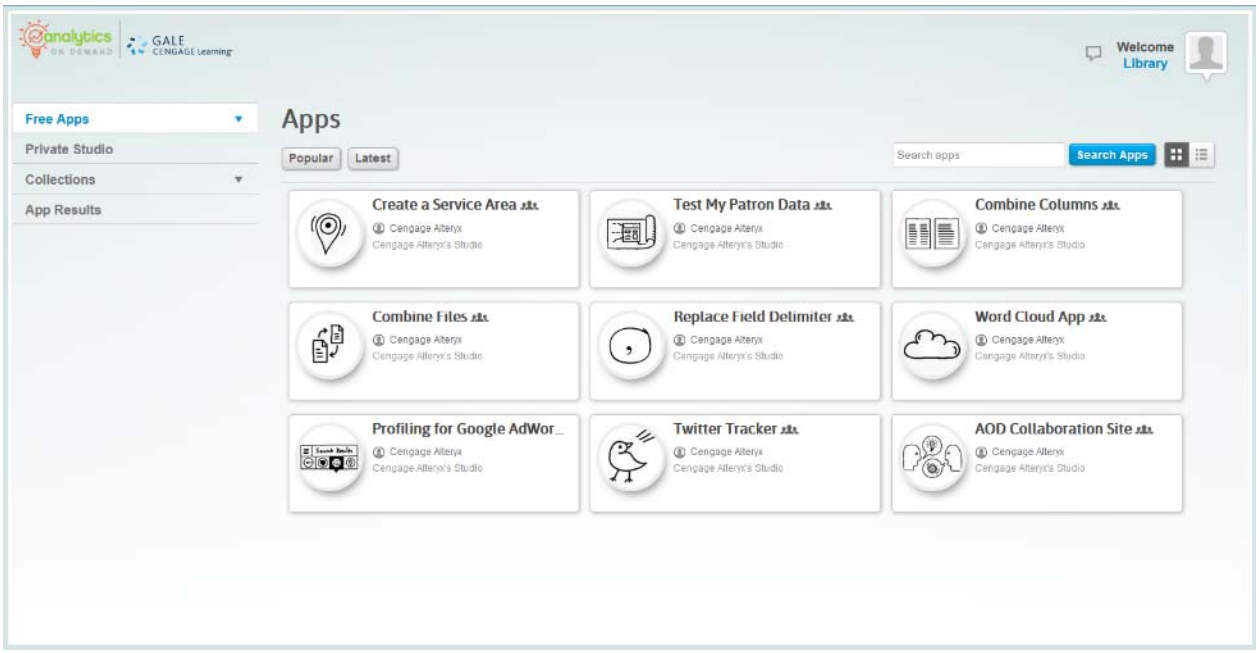
2.0 GETTING STARTED

2.0 GETTING STARTED

This section walks you through the AOD platform system from initiation through exit.

2.1 Logging On and Logging Off

Gale provides access to AOD through usernames and passwords. When you enter AOD—through the Gale- provided URL in your access letter—the following login page appears:



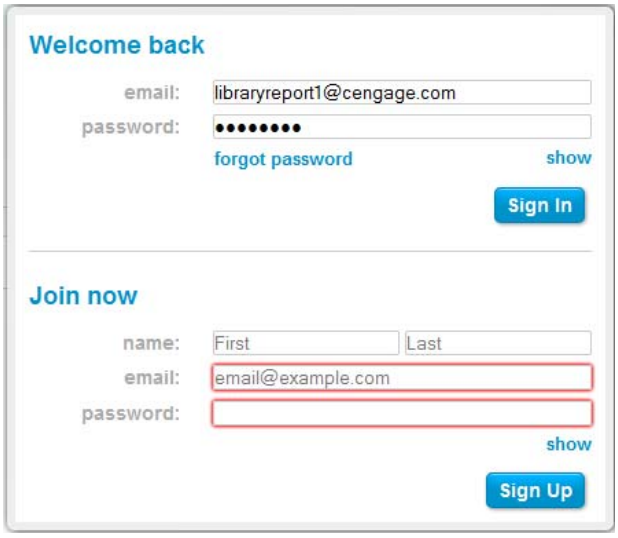
Move your cursor to the upper right corner of the screen above the

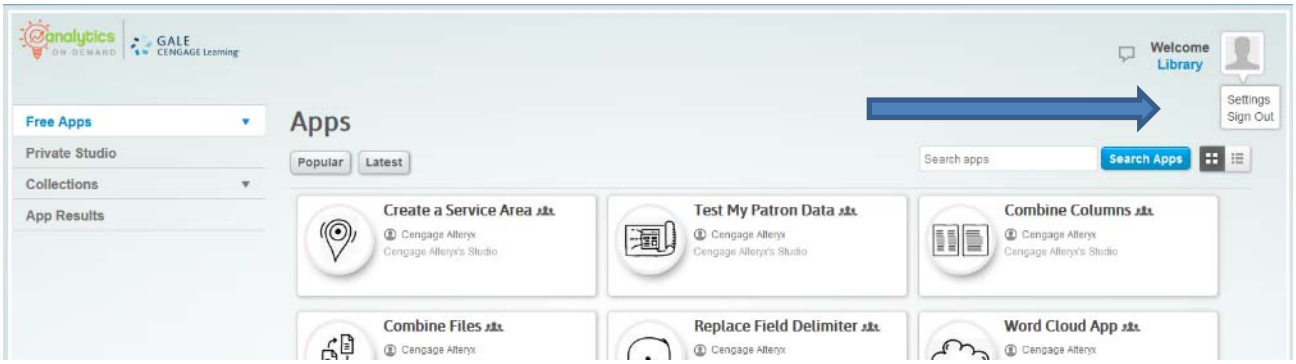
icon. Type your username and password into the box that appears and click the icon to enter AOD.

Note: The logins provided with your subscription are email addresses that allow access to the private collections as well as any other apps present in the public gallery.

Other staff members can create additional usernames that enable them to enter the public gallery, which is populated with complimentary apps provided with your paid subscription.

Examples of these complimentary apps are a Twitter Tracker and a Word Cloud app.





To log off the system, simply move your cursor to the upper right corner of the screen. A box with **Settings** and **Sign Out** options appears. Click **Sign Out**, and access to the system ends.

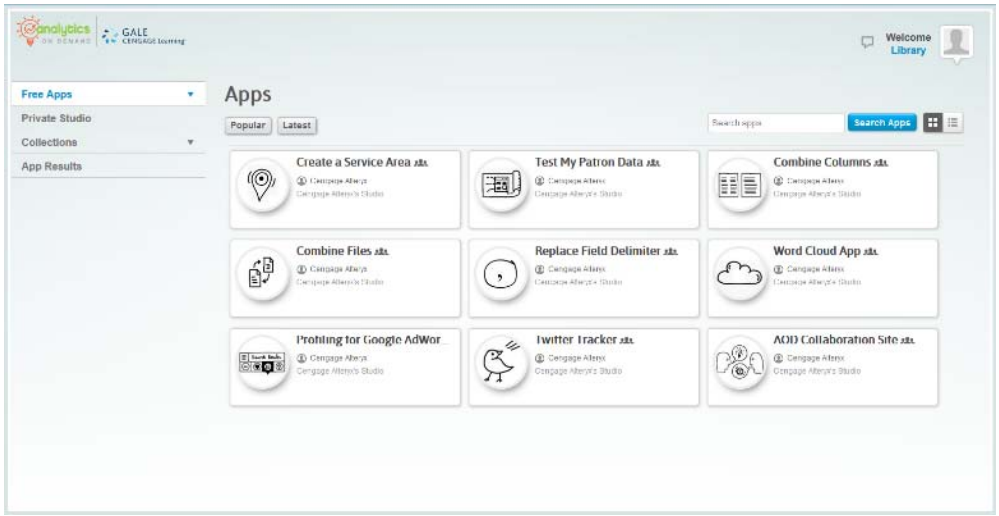
2.2 System Menu

This section describes in general terms the system menu AOD users' first encounter, as well as the navigation paths to functions referenced on the screen.

2.2.1 Free Apps

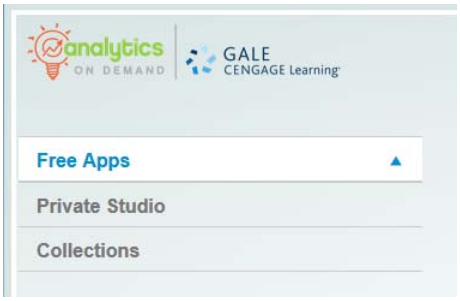
When you log into AOD, the following screen, which lists the complimentary apps included with your subscription, appears. Depending upon the number of complimentary apps in the Free Apps gallery, you may wish to click Popular to view the most popular apps or Latest to see the most recent complimentary apps that have been loaded.

Note: Staff members who created user IDs not authorized during the initial authentication setup can view and run any of the complimentary apps in the Free Apps gallery.



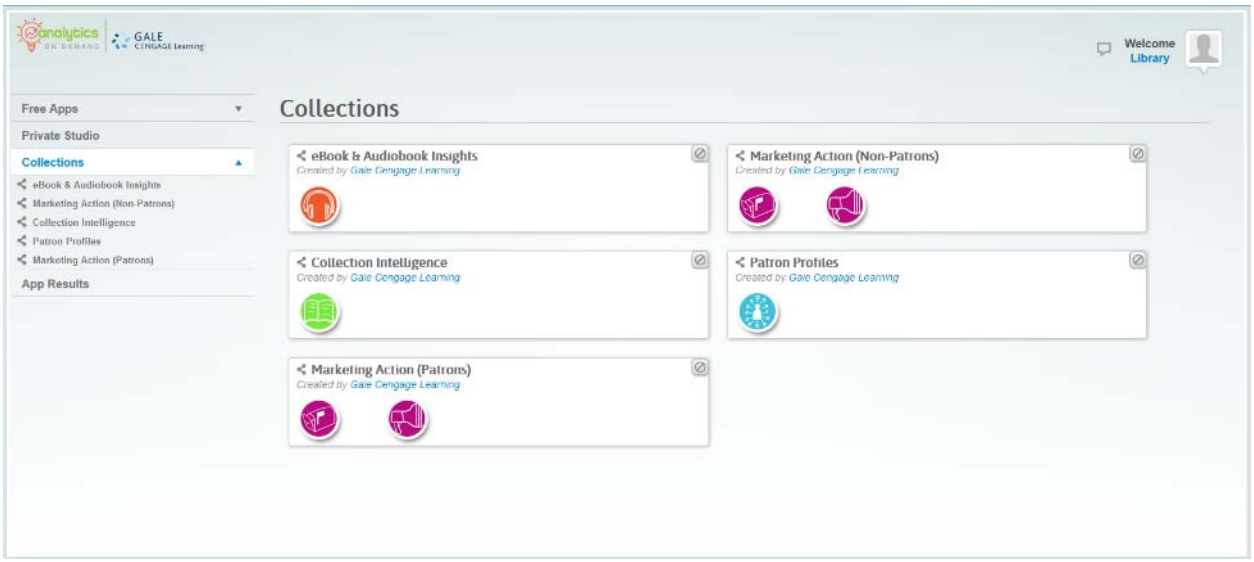
2.2.2 Private Studio & Collections

The AOD system menu appears on the left side of the screen. As noted in Section 2.2.1, logging into AOD places you in the Free Apps Gallery.

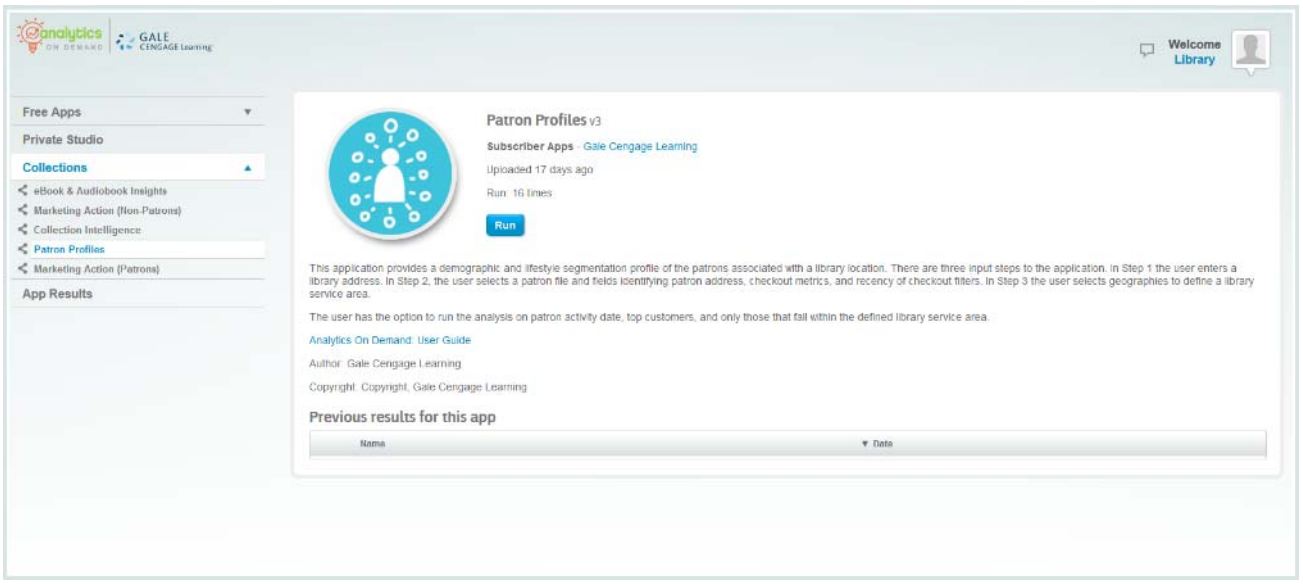


When you click *Collections*, you can view the apps your library currently subscribes to. To access an app, click the collection name (app) or icon under the *Collections* header in the center of the screen. The app will open on its general description page. See the following screenshot for a view of the *Collections* formatting in AOD.

Note: There are several other AOD sections, and two contain apps. The first, *Private Studio*, is not open to libraries. The second, *Collections*, contains the apps your library subscribes to.



As indicated earlier, clicking a specific app opens it on its general description page, which is shown in the following screenshot.

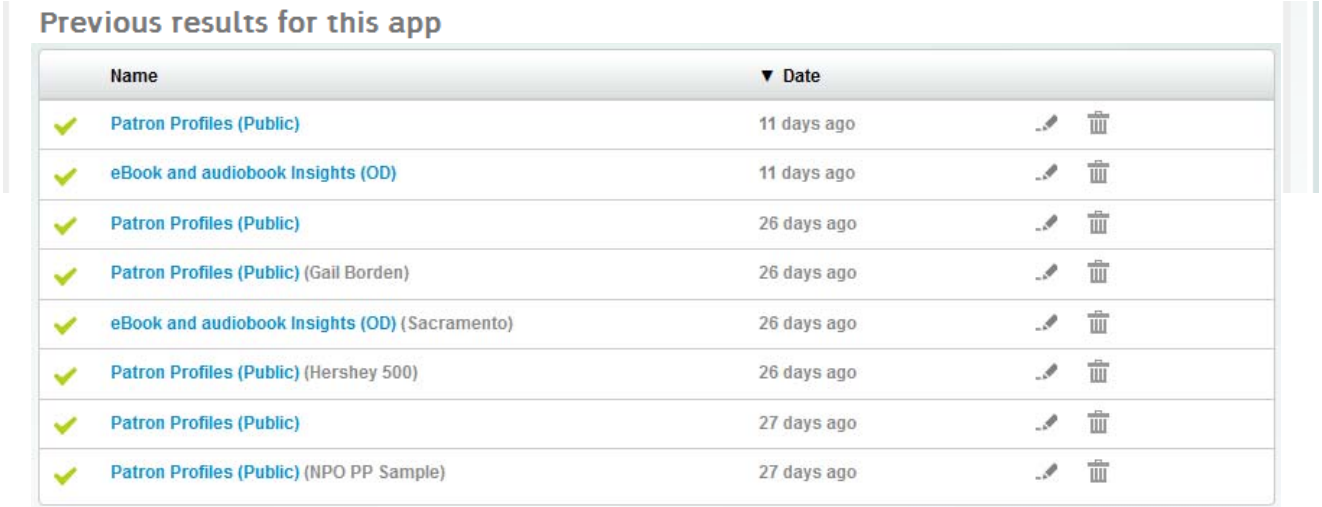


The general description page:

- Provides the name of the app
- Indicates the last time the app was updated, including its version number
- Shows how many times the app was run using your login
- Provides links to output (reports) from previous runs, assuming you have not deleted them
- Provides a link to the AOD User Guide

The first three bulleted items are self-explanatory. The fourth refers to HTML-formatted output, or reports produced by previous executions of an app and stored in the cloud. Note that these reports are stored in the cloud, but the files used to create them were deleted after the apps were run. These reports remain in the cloud until you delete them by clicking the trash can ( ) icon.

The following screen **Previous results for this app** displays a typical report and when it was run.



The screen **Previous results for this app** displays a running list of all the reports you have run and not deleted. As in the individual app list, you may rename or delete these reports by clicking the appropriate icon.

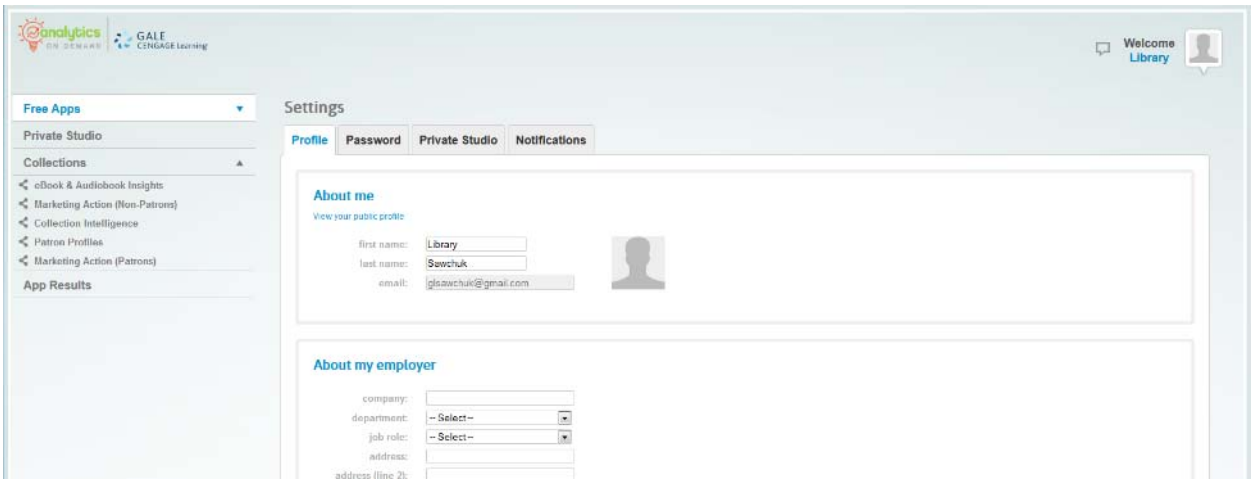
Note: You may delete any or all of these reports. You may also click the **renaming icon** ( ) to rename them. This provides a second opportunity to uniquely name a report. Your first opportunity was when the app was initially run.

2.3 Changing Selected User ID Information and Password

This section describes how to change selected information related to your user ID, including your password.

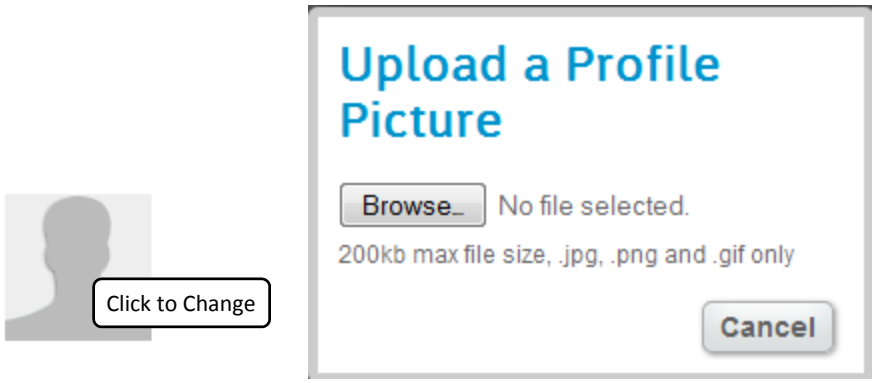
To access and change this information, click **Settings** by moving your cursor in the top right corner of the screen.

The following screen displays multiple tabs. Only **Profile** and **Password** are accessible to you. Click **Profile** to change general information that appears on screen views when you are logged in. This includes the ability to upload an image that is visible in the upper right corner at login.



You can change this image by mousing over it.

A box that instructs you to **Click to Change** appears. After you click it, a box that instructs you to browse your hard drive for a new image—similar to attaching a file to an email—appears.



Save any changes you make by clicking the Save icon. All changes will appear the next time you log into AOD.

2.3 AOD Data Sources

This section covers current AOD data sources that you may blend with your library's data, depending on the specific AOD app used.

2.3.1 Demographics Segmentation Syndicated Survey Data

Experian Estimates & Projections (CAPE)
- Demographic data, consumer expenditure, retail demand, daytime population

Experian Mosaic
- Residential clustering definition and classifications

The Experian data install includes the following datasets and, with Mosaic and Mosaic Workplace, is referred to as CAPE:

- Current YR and 5YR Demographic Estimates and Projections
- US Census (2010)
- Current YR and 5YR Consumer Expenditure and Retail Demand
- 2012 American Community Survey (ACS)
- 2013 Mosaic and Mosaic Workplace (BG Dominant and Distributions)
- 2013 Simmons Syndicated Survey

2.3.2 Demographics Household Data

Experian ConsumerView [SM]
- Household demographic data

Experian's data warehouse of consumer demographics and self-reported life event, direct response, property, and mortgage information is the largest and most comprehensive resource for both list services and data enhancement available today — including data on more than 235 million consumers and 113 million households in the U.S.

Released quarterly, household fields include Mosaic Household and ZIP4, mail order buyer preferences, mortgage/home purchase, median family income, estimated income, dwelling type, and presence of children under 18. At the individual level, it includes marital status, gender, education, and occupation group.

2.3.3 Spatial Data

TomTom
- Address Points, Streetware, Geocoder, ZIP+4 Coder, CASS and Drivetime engine

Alteryx
- Maps

These products provide a visual display or add spatial dimension to files through address cleansing, geocoding, and drive time creation.

- Address Points includes more than 80 million parcel centroids. A parcel is the property boundary of an address; most of the points in the database are the centroid of the property boundary. However some of the points are edited by TomTom to rooftop accuracy and can enhance geocoding results.
- Alteryx Maps enhances mapping with atlas-like reference layers.
- Geocoder adds a spatial object (latitude/longitude) to addresses for visualization and data retrieval processes.
- ZIP+4 Coder adds spatial objects at multiple levels: ZIP Code, ZIP +2 and ZIP +4.
- CASS offers address clean-up and standardization for better data matching processes and geocoding.
- Guzzler creates drive-time polygons or measurements between points based upon distance or speed for visualization and reporting.

2.3.3 2015 Data Update Schedule

	Q1	Q2	Q3	Q4
TomTom Geocoding Data	x	x	x	x
TomTom Mapping Data	x		x	
Drivetime Engine	x		x	
Experian CAPE Demographics	x		x	
Mosaic Segmentation	x			
Simmons Behavioral Data			x	
Experian HH File	x	x	x	x
Spatial/Data Designer Update	Week of Aug 10	Week of Oct 5	Week of Dec 14	Week of Mar 7
Gallery Update	Week of Aug 24	Week of Oct 19	Week of Jan 4	Week of Mar 21
CASS	Feb, Apr, Jun, Aug, Oct, Dec			

2.4 AOD Data Security

2.4.1 Cloud Storage/Security

- Amazon Web Services (AWS) is the cloud computing service [Platform as a Service (PaaS)] for the AOD/Alteryx Analytics Gallery.
- AWS has a number of certification and accreditations with respect to the security of its hardware and supporting services. (See http://aws.amazon.com/security/.)
- AOD stores the output data file in a compressed, proprietary schema in a NoSQL data warehouse, until the user deletes the output file.
- Even if an attacker could obtain a copy or portion of the output report stored in the data warehouse, they would lack the proprietary code to decrypt and use the data. In addition, the output report lacks detailed information on any specific library patron.

2.4.2 Data Transfer

- When an AOD application is run, the file created is not permanently stored but rather used during run time and deleted immediately afterward. The communication "channel" used to deliver a file to an application is an encrypted channel.
- The only output from running an application is a report that is saved until a user deletes it.
- All files and report outputs can only be viewed by a user who has logged into AOD to execute an application.

2.4.3 Analytics Gallery

- While any data is stored in a shared NoSQL data warehouse, security firewalls and multiple permission levels prevent access to the AOD applications or their data to anyone other than a specific library user who has been authorized to use them.
- Neither Gale nor Alteryx gallery administrators have access to content/data used to generate a report by a specific customer. Permission must be explicitly granted to a Gale/Alteryx administrator or delivered to a Gale/Alteryx representative via some other electronic means such as FTP or email.
- The AOD site was reviewed and security penetration tests were performed by a third-party vendor.

2.4.4 Execution/Runtime

- AOD applications and associated data are secure even when being transferred among the horizontal array of execution servers in AWS.
- All communication is compressed and encrypted among all servers in the array to prevent "man-in-the-middle" attacks.
- Execution is a transient operation and no residual data (temporary or otherwise) is persisted in any location other than the secure data warehouse.

2.5 AOD Data Formats

2.5.1 Date Formats

AOD uses date fields in multiple apps. The format of these date fields are consistent with how Microsoft products auto-configure date fields. The AOD software is using the Microsoft driver to convert the file upon upload. Month should always come before day, with one exception. But for #9 they all follow a similar pattern.

1. MM/DD/YYYY
2. MM-DD-YYYY
3. MM/DD/YY
4. MM-DD-YY
5. M/D/YYYY
6. M-D-YYYY
7. M/D/YY
8. M-D-YY
9. YYYY-MM-DD

Another important issue is to ensure the date field you are uploading only has one format in it. Sometimes when a user opens a file in excel, they can accidently manipulate the format without knowing.

2.5.2 Address Formats

AOD uses addresses in many of the apps. The input file can use either an address in one column or separate columns (a separate column for the address line, a separate column for the city, the state, the zip code). When using a single column for an address, AOD only recognizes a '$' delimiter between the street address and the city. No other delimiter is required.

2.5.3 App Input file Formats

AOD requires that data input files be in specific formats. In effect, AOD is ILS agnostic but does require a certain format be used. Following are the requirements and examples of file formats for each of the existing apps.

Patron Profiles & Marketing Action (one file)

Excel file that includes the following *three* pieces of data (in any order) – columns must have header names (the specific names are not important, as long as the columns have names):

- Patron address
    - the patron address can either be in separate columns as follows:

Address	City	State	ZIP Code
34505 Bunker Hill Dr	FARMINGTON HILLS	MI	48331
35230 13 MILE RD	FARMINGTON HILLS	MI	48331
29505 ANDOVER BLVD	FARMINGTON HILLS	MI	48331
28641 AUBURN CT	FARMINGTON HILLS	MI	48331

- or in one column (if in one column, note the position of the '$' delimiter), as follows

Address
34505 BUNKER HILL DR$FARMINGTON HILLS MI 48331
35230 13 MILE RD$FARMINGTON HILLS MI 48331
29505 ANDOVER BLVD$FARMINGTON HILLS MI 48331
28641 AUBURN CT$FARMINGTON HILLS MI 48331

- Checkouts (you may select the time period; e.g. could be in total, last year, last two years, etc)
- Last active date (the date the last time a patron checked something out)
- It is also beneficial to include one *additional* optional field, the patron barcode, as other apps (Collection Intelligence & eBooks & audioBooks Insights) will also be using this file

As an example, the full file would look as follows (if the address was in one column):

Address	Last Active Date	Total Checkouts	Barcode (optional)
34505 BUNKER HILL DR$FARMINGTON HILLS MI 48331	7/7/2000	48	2758893
35230 13 MILE RD$FARMINGTON HILLS MI 48331	7/7/2000	1	2782499
29505 ANDOVER BLVD$FARMINGTON HILLS MI 48331	7/7/2000	3	2286129
28641 AUBURN CT$FARMINGTON HILLS MI 48331	7/7/2000	14	1815185

Collection Intelligence (two files)

Data Input File #1 – excel file that includes the following ***three*** pieces of data (in any order) - columns must have header names (the specific names are not important, as long as the columns have names):

1. Shelf Location code (this normally includes a location code but your library may not use a location code so that is optional; this column represents where a librarian would 'reshelf' the item)
2. Format: e.g. book, CD, Audio, etc
3. Patron address (if in one column, delimiters are necessary)

As an example, a file would look as follows (with the address in one column):

Format	Shelf Location	Address
11	shjdv	34505 BUNKER HILL DR$FARMINGTON HILLS MI 48331
7	maadv	35230 13 MILE RD$FARMINGTON HILLS MI 48331
8	maadv	29505 ANDOVER BLVD$FARMINGTON HILLS MI 48331
8	koadv	28641 AUBURN CT$FARMINGTON HILLS MI 48331

Definitions Setup File #2 (OPTIONAL – without this file only the codes will show in the report output) – excel file that includes the following columns (in any order) - columns must have header names (specific names are not important, as long as the columns have names):

1. Format code
2. Format code descriptive text (e.g. book, CD, DVD, etc)
3. Subject/genre code (included in the shelf location code)

4. Subject/genre descriptive text
5. Location code (as indicated above, this is optional)
6. Location code descriptive text (as indicated above, this is optional)

A sample file would look like the following:

Format Code	Format Description	Subject code	Subject description	Location code	Location Description
1	Adult Book	xxx	Ignore	9x	Other libraries
2	Unused	abr	Blu-ray	ad	Administration
3	Unused	acm	Cassette-Music	cc	Farmington
4	Music CD	acs	Cassette-Spoken	cw	Bloomfield - East

eBook and Audiobook Insights (OD) (two files)

Data Input File #1 (Patron information) - excel file that includes the following ***two*** pieces of data (in any order) - columns must have header names (the specific names are not important, as long as the columns have names):

1. Unique library patron identifier code (could be a bar code or a unique Overdrive code; this code must be identical in both files)
2. Patron address (if in one field, delimiters are necessary)

As an example, a file would look as follows (with the address in one column):

Address	Barcode
34505 BUNKER HILL DR$FARMINGTON HILLS MI 48331	2758893
35230 13 MILE RD$FARMINGTON HILLS MI 48331	2782499
29505 ANDOVER BLVD$FARMINGTON HILLS MI 48331	2286129
28641 AUBURN CT$FARMINGTON HILLS MI 48331	1815185

If your library has BOTH Patron Profiles and eBook and Audiobook Insights, the extraction should look as follows with ***three*** pieces of data (so it could be used for both apps):

Address	Barcode	Circ Active	TOT CHKOUT
34505 BUNKER HILL DR$FARMINGTON HILLS MI 48331	2758893	7/7/2000	48
35230 13 MILE RD$FARMINGTON HILLS MI 48331	2782499	7/7/2000	1
29505 ANDOVER BLVD$FARMINGTON HILLS MI 48331	2286129	7/7/2000	3
28641 AUBURN CT$FARMINGTON HILLS MI 48331	1815185	7/7/2000	14

Data Input File #2 (Overdrive information) - excel file that includes the following ***three*** pieces of data (in any order) columns must have header names (the specific names are not important, as long as the columns have names):

1. Format (eBook, audioBook, etc)
2. Subject field

3. Unique library patron identifier code (could be a bar code or a unique Overdrive code; this code must be identical in both files in order match for address locations)

As an example, a file would look as follows:

Format	Subjects	Barcode
eBook	Fiction, Mystery, Non-English Fiction	2758893
Audiobook	Fiction, Mystery	1064524
eBook	Home Design & Décor, Nonfiction	2758153
eBook	Nonfiction, Self Help, Sports & Recreations	1954906

Marketing Action (both Patron & Non-Patron) (one file)

Excel file that includes the following *one* piece of data – column must have a header name (the specific name is not important, as long as the column has a name):

1. Patron address
    - the patron address can either be in separate columns as follows:

Address	City	State	ZIP Code
34505 Bunker Hill Dr	FARMINGTON HILLS	MI	48331
35230 13 MILE RD	FARMINGTON HILLS	MI	48331
29505 ANDOVER BLVD	FARMINGTON HILLS	MI	48331
28641 AUBURN CT	FARMINGTON HILLS	MI	48331

    - or in one column (if in one column, note the position of the '$' delimiter), as follows

Address
34505 BUNKER HILL DR$FARMINGTON HILLS MI 48331
35230 13 MILE RD$FARMINGTON HILLS MI 48331
29505 ANDOVER BLVD$FARMINGTON HILLS MI 48331
28641 AUBURN CT$FARMINGTON HILLS MI 48331

3.0 PATRON PROFILES

3.0 PATRON PROFILES

This section provides a detailed description of the Patron Profiles app.

3.1 Patron Profiles

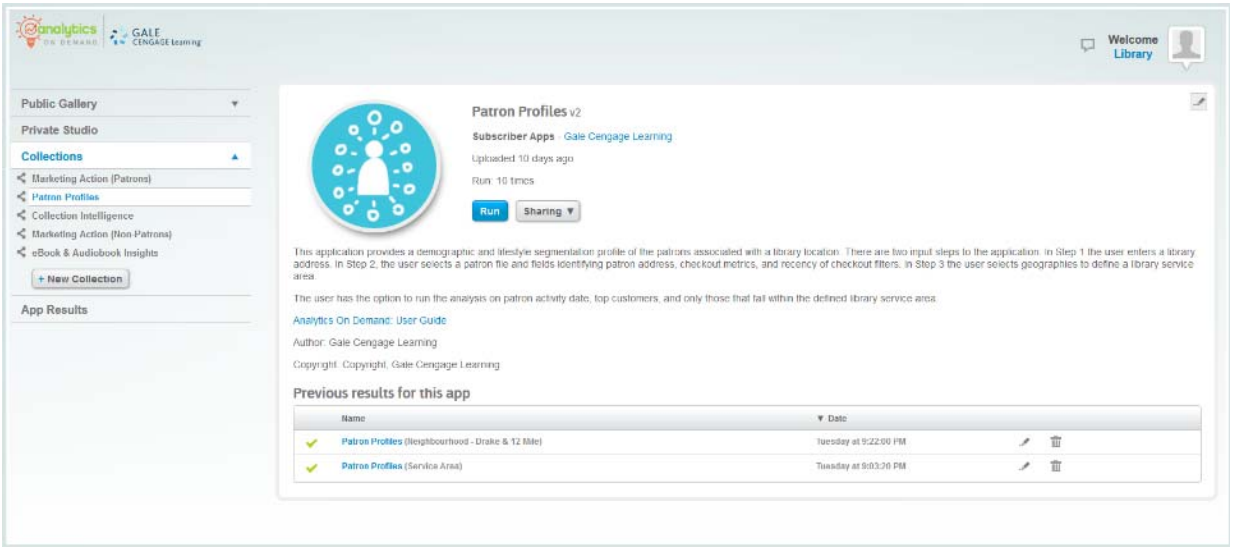
This app explains who a public library's patrons are—and aren't—so that a library can make data-driven decisions and drive meaningful outcomes for itself and the community it serves.

Patron Profile reports include:

- **Methodology** – Uses Mosaic lifestyle customer/market segmentation on a household basis with more than 71 types and 19 groupings.
- **Demographic Overview** – Includes an analysis of the library community's demographic data from the 2010 Census, a current view, and a 5-year forecast of key variables.
- **Patron Analysis Demographics –** Shows library activity based on location, household composition, dwelling type, and other variables.

3.1.1 Patron Profiles – Initial Screen

The following screen appears when you click the *Patron Profiles (Public)* app:



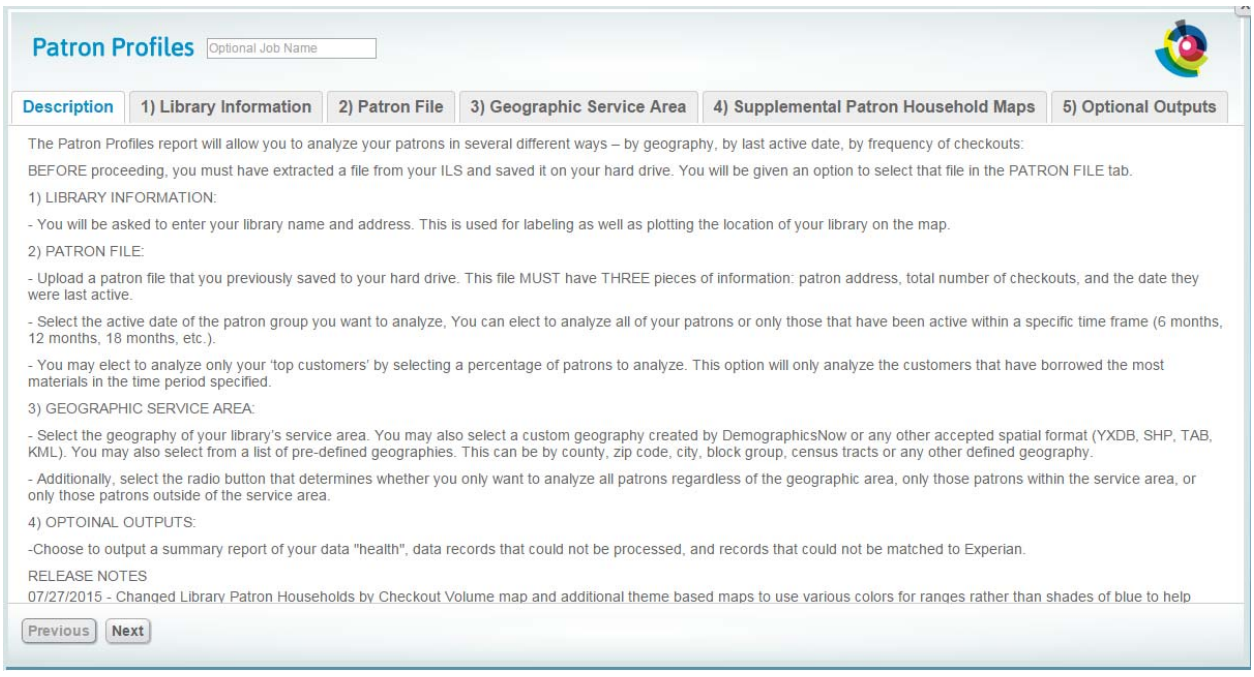
This screen provides key information:

- **Version number** – When the app is modified, the version number increments by one. Modifications may include enhancements, changes that accommodate input data files, and/or error corrections that are uncovered with repeated user access.
- **A summary description of the app** – "This application provides a demographic and lifestyle segmentation profile of the patrons associated with a library location. There are three input steps to the application. In Step 1 the user enters a library address. In Step 2, the user selects a patron file and fields identifying patron address, checkout metrics, and recency of checkout filters. In Step 3 the user selects geographies to define a library service area. The user has the option to run the analysis on patron activity date, top customers, and only those that fall within the defined library trade area."
- **Link to Analytics On Demand User Guide** – clicking on this link takes you directly to the AOD user guide.
- **Listing of previous reports** – As discussed in Section 2.2.2, this list includes previous results (that you did not delete) which are currently stored on the Amazon cloud server.

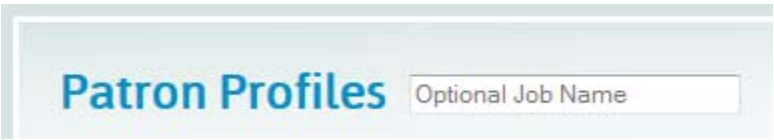
3.1.2 Patron Profiles – Description

When you click

, the following screen appears. Note that the screen displays six tabs. (Some apps may have more or fewer tabs.) The **Description** tab explains what is required to run the app, including a high-level overview of commands.



This tab allows you to name an output report in the text box located at the upper left side of the screen:



By using unique names, you can easily identify reports from previous runs if you have not deleted them. You can name a report by the options selected or by the date on which it was run.

To proceed to the next tab, you may click the Next button on the lower left side of the screen or the tab at the top of the screen.

3.1.3 Patron Profiles – Library Information

The **Library Information** tab provides boxes where you can input the name of your library and its address. This information is used for four purposes:

- To label the report generated
- To identify the spatial GIS point of the library's location in order to map this on map views in the report
- To calculate the drive time for each library patron from home to the library
- To choose whether or not to display the library location on any maps views when it is outside of the selected Service Area

Click Next at the lower left side of the screen to proceed to the next tab.

3.1.4 Patron Profiles – Patron File

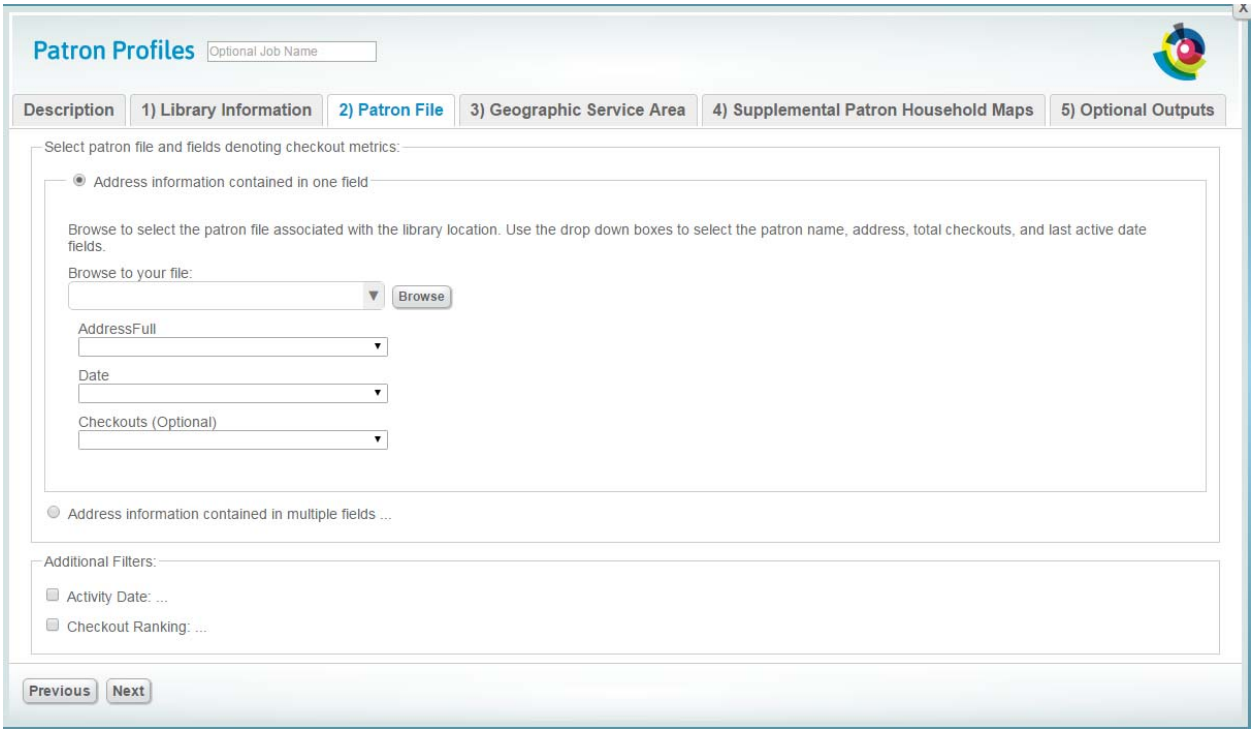
Use the **Patron File** tab to upload a data file—normally an Excel—file from your ILS. This file requires three specific pieces of information: patron address, total checkouts (optional), and a patron's last active date.

You have flexibility in the type of data to include. For example, for total checkouts, your file could include total checkouts over the life of the library card or some subset filtered by ILS extraction. Perhaps the ILS extract includes only six months or a year of checkouts. Since the checkouts field is optional you may choose not to include it at all.

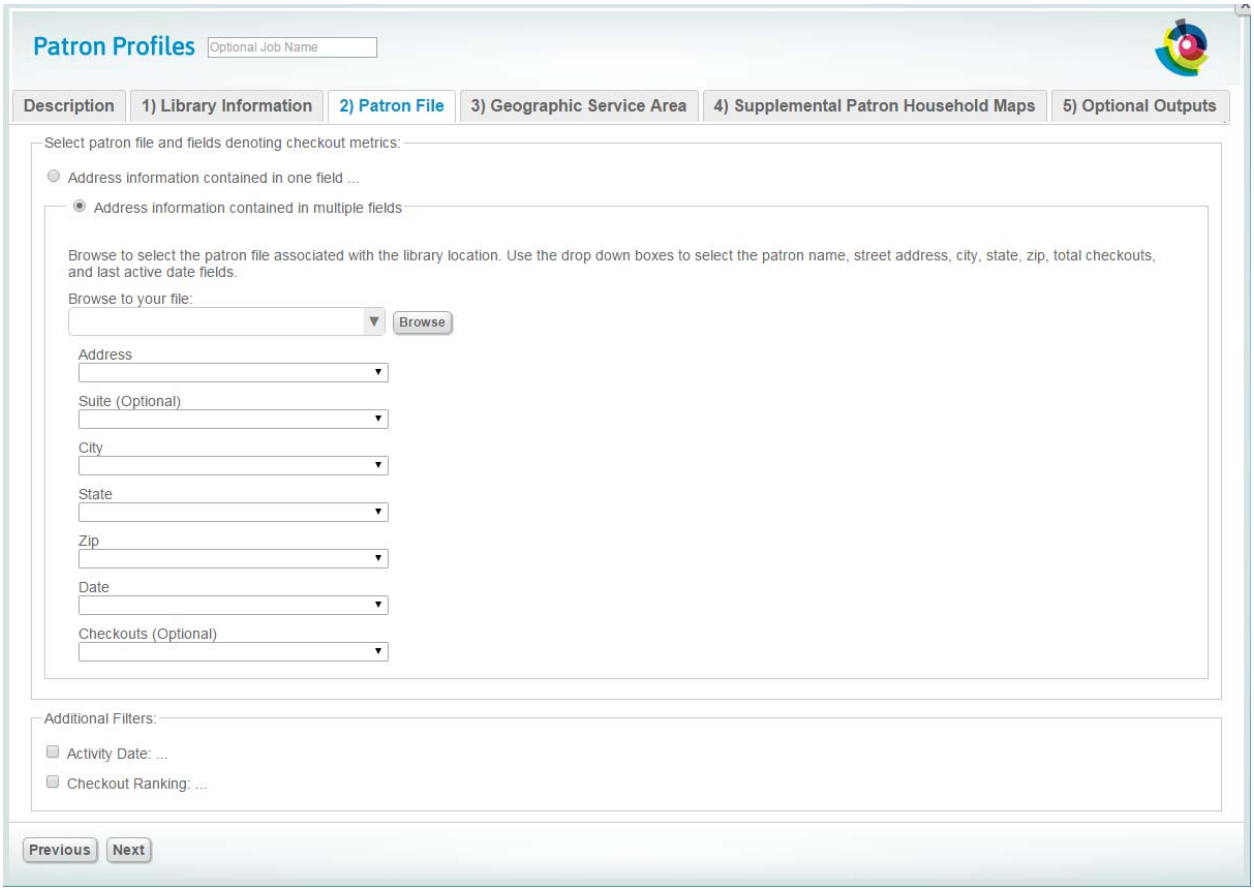
For last active date—if the ILS allows it —you may want to include only the last activity date for physical checkouts, the last activity date for computer use, or any other date tracked in in the ILS. This allows filtering not only by the *Patron Profiles* app (more on this to follow) but also on the ILS extract date you used to create the AOD input file.

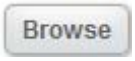
The following screenshots show data for an input file that includes a patron address. Depending on your ILS, a patron address may be extracted and placed in multiple columns—one or two for street address, one for city, one for state, and one for ZIP code. The view presented depends on the radio button you select. (The single-column address view is the default.)

This screen shows the single-column address view.



The following screen shows the multiple-column address view.



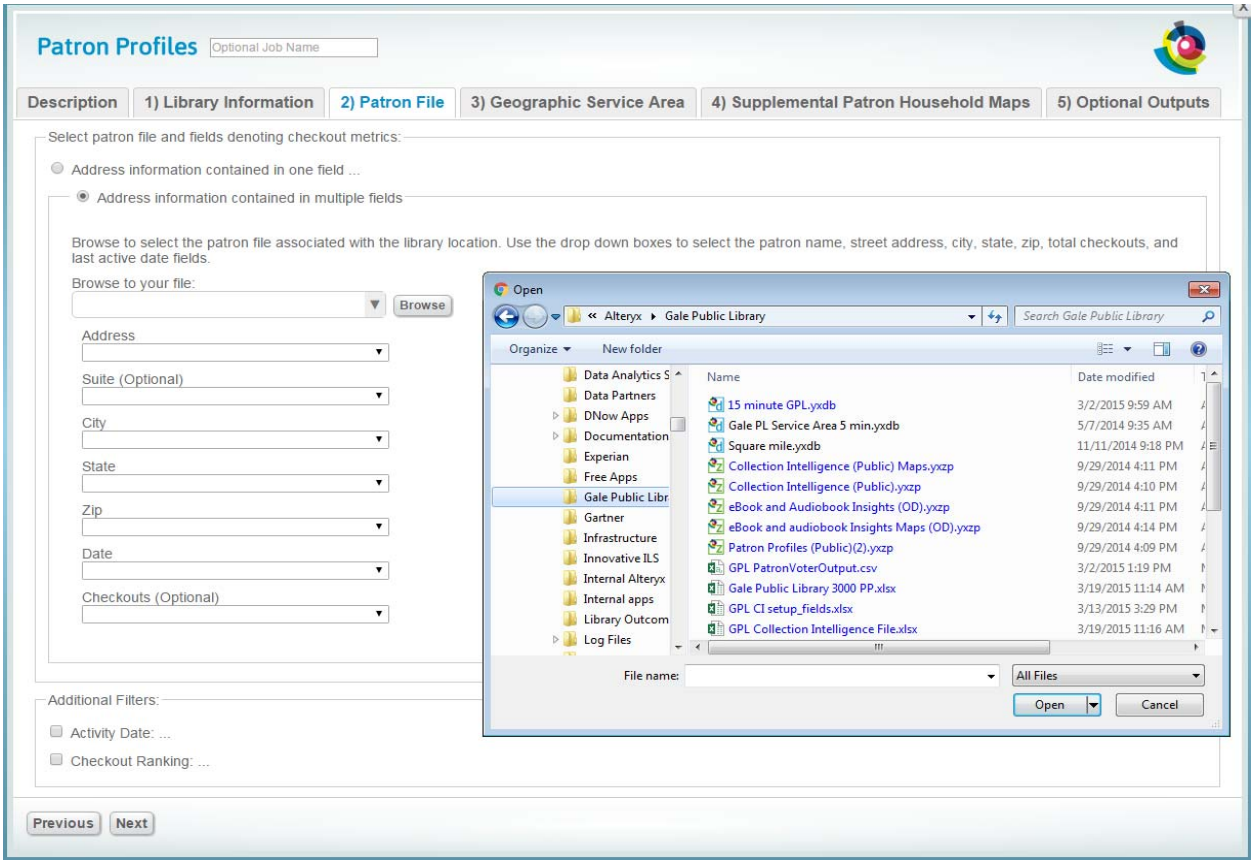
Once you select the address radio button, the next step is to click the 

button to browse input files located on your hard drive and/or network drive for uploading. This process is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You **must** have already extracted your input file from your ILS before accessing the app.

It is also critical that the format of the input file is identical to the sample file previously submitted to Gale during the validation phase of ordering. Changing the format may prevent the app from running properly. If any problems occur during running the app, contact Gale Customer Care.

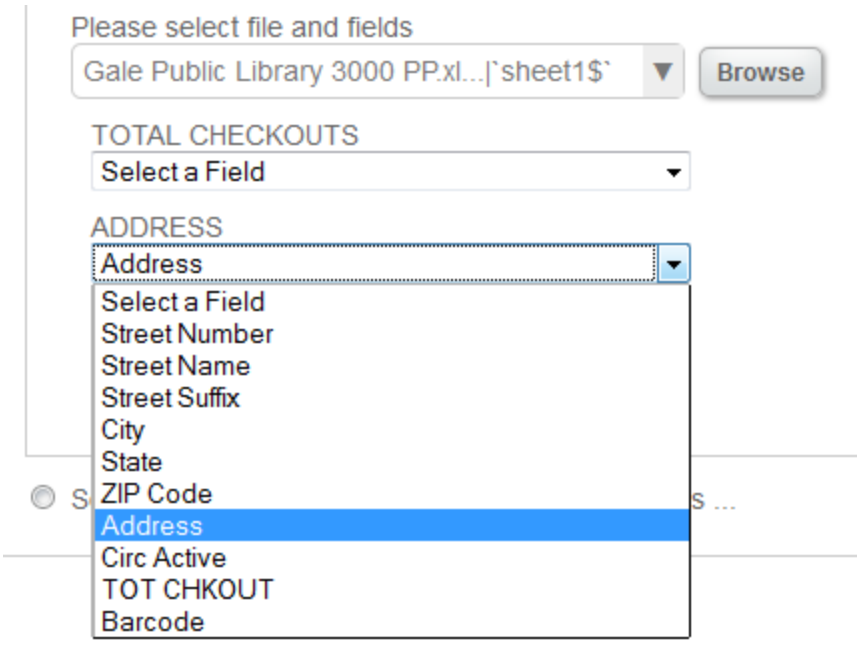
As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.



After you select the file, AOD asks you to confirm that the spreadsheet it selected from the input file is correct by clicking OK.

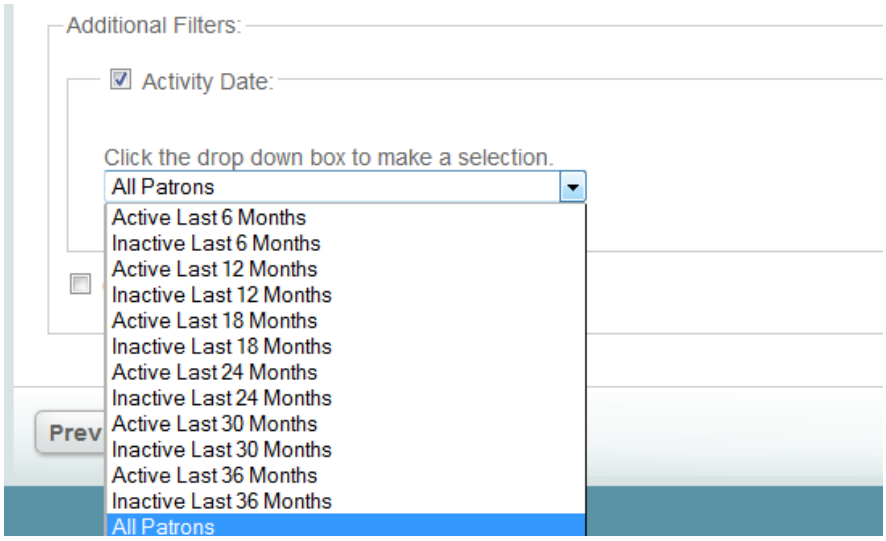
Note: Excel workbooks can contain multiple spreadsheets, which is why it is important to confirm the selection.

Once you have confirmed the selection, AOD loads the file into the app and attempts to match the columnar fields to the names on each of the fields identified in this tab (address, checkouts, and active date). If the heading in the input file is similar to the descriptive name on the screen AOD auto-selects that column. Verify that the app has selected the correct columns of data. If not, click the drop-down list **Please select file and fields** to deselect the choice made and replace it with the correct choice.
On fields that AOD has not auto-selected, click the drop-down list of the remaining fields and match the correct field in the input file to the required field.



After you upload your patron file, scroll down the screen and you may choose two filters a) patron activity date, or b) percentage of top patrons

As noted, the first filter is **patron activity date**. Click the icon for a drop-down menu of choices. The default is the All Patrons.

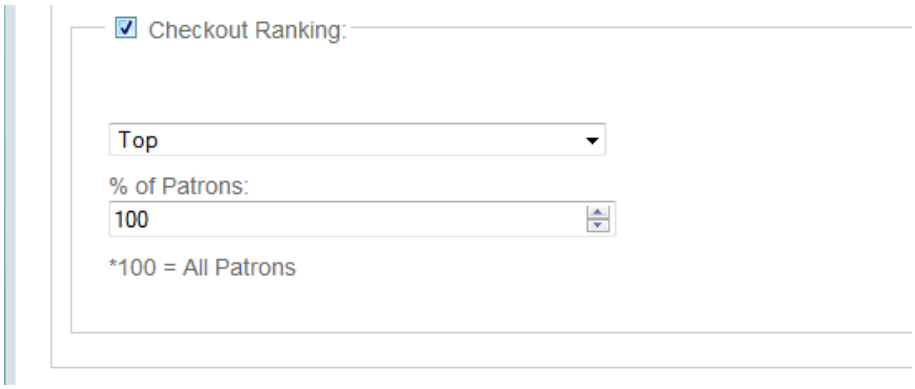


This means that all patrons, regardless of activity on their library card, are included in the **Patron Analysis**. To change this selection, select the option you prefer. Note that this filter is keyed to the date field in the **Patron File** tab.

Note: You can define the extract activity date column differently. That is, you can choose a date from cardholder inception or a period of time defined by the ILS extraction when creating the input file. The

most common choice is the last date of patron activity, with no filter applied when extracting the file from the ILS.

The next filter, **Checkout Ranking**, allows you to select a percentage of your heaviest (or least heaviest) users, as measured by **Total Checkouts** column data in the user input file.



By clicking the arrows to the right of the box, you can choose to analyze a percentage of your very best (or your low usage) "customers." This could be the top five (5) percent of users, as measured by a highest-to-lowest ranking of checkouts. This selection is best used after first analyzing all patrons and then doing selective analysis on smaller groups of patrons. You may, for example, want to do a percentage ranking of usage by patrons from a smaller geography or by patrons who live outside the service area.

Click

at the lower left side of the screen to proceed to the next tab.

3.1.5 Patron Profiles – Geographic Service Area

Your next step is to identify the geographic area you want to analyze. Examples of geographies include

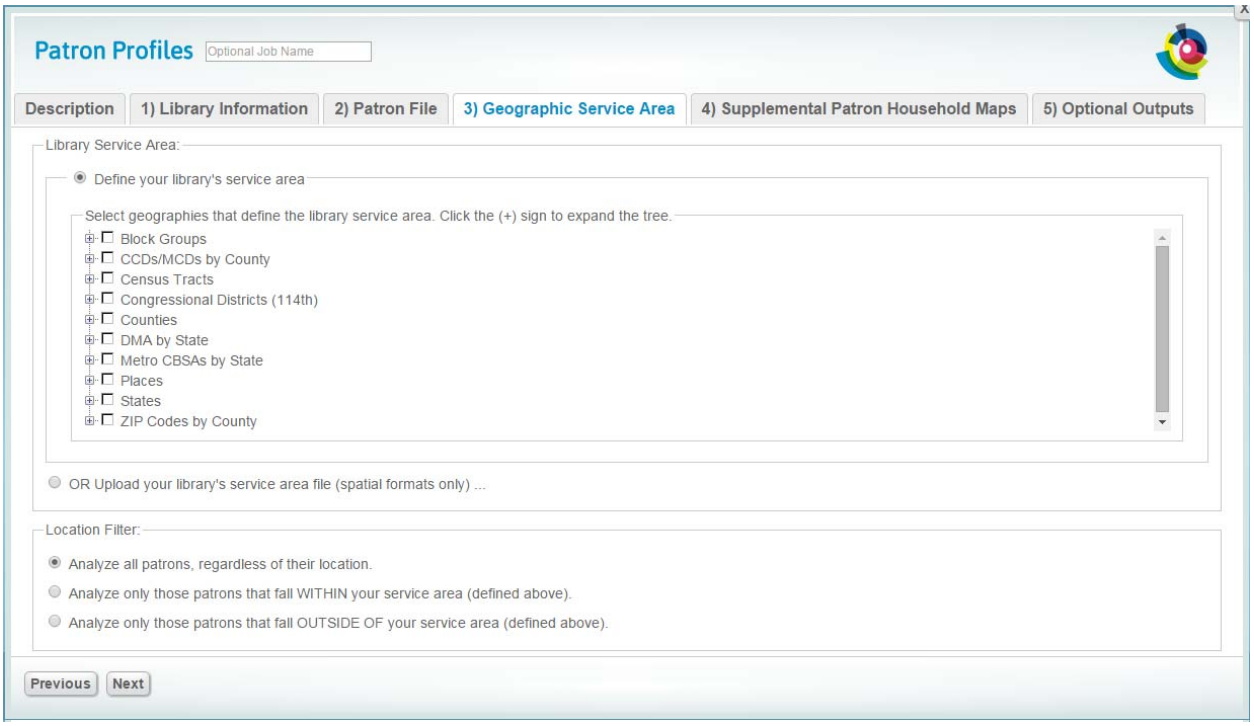
a) the library's service area, b) surrounding geographies outside the service area (to analyze patrons who use the library but don't reside in the service area, c) smaller geographies, such as census tracts and block groups (to analyze specific neighborhoods).

In order to select a geography from the geography tree, first locate the type of geography to be loaded, such as ZIP code, county, block group, census tract, or CBSA. Next, click the + **sign** to expand the list and locate the geography you want. You may select a single geography by clicking the box next to it. (A check mark appears.) You may select multiple geographies by checking the box next to each one. If you select multiple geographies, they will be combined in the analysis.

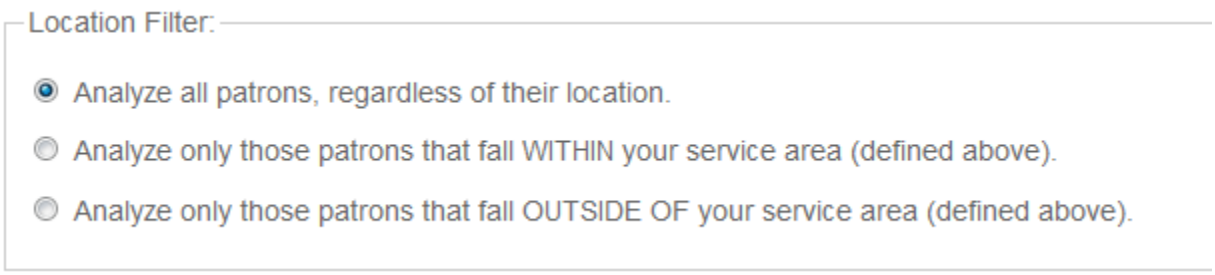
Note: If you are interested in a county, do not select all its block groups. The AOD system calculates the smallest geography first and adds each individual selection to it. If you select all its block groups, calculations may take hours.

You can select geographies from the geography tree menu or upload a custom geography (GIS) spatial file. Spatial files from either MapInfo or ESRI must be packaged within a zipped folder before uploading. This app also accepts Alteryx (YXDB) and Google Earth (KML) format spatial files. If you are loading a spatial file, click the OR Upload your library's service area file (spatial formats only) button and then click on Browse button and locate the **spatial file** in the directory you previously saved it and select it. When the file appears in the file window, move to the next filtering question, which appears after the geography tree.

After you select a geography, scroll down the screen and choose the final filter: whether to include or exclude patrons outside the geography selected.



Finally, the **location filter** looks at whether patrons live inside or outside the library service area. The default selection, **Analyze all patrons**, includes all patrons, regardless of where they live. Clicking **Analyze only those patrons that fall WITHIN your service area (defined above)** includes patrons only if their addresses lie within the service area geography you defined earlier. Clicking **Analyze only those patrons that fall OUTSIDE OF your service area (defined above)** includes patrons only if their addresses lie outside the service area geography you defined earlier.

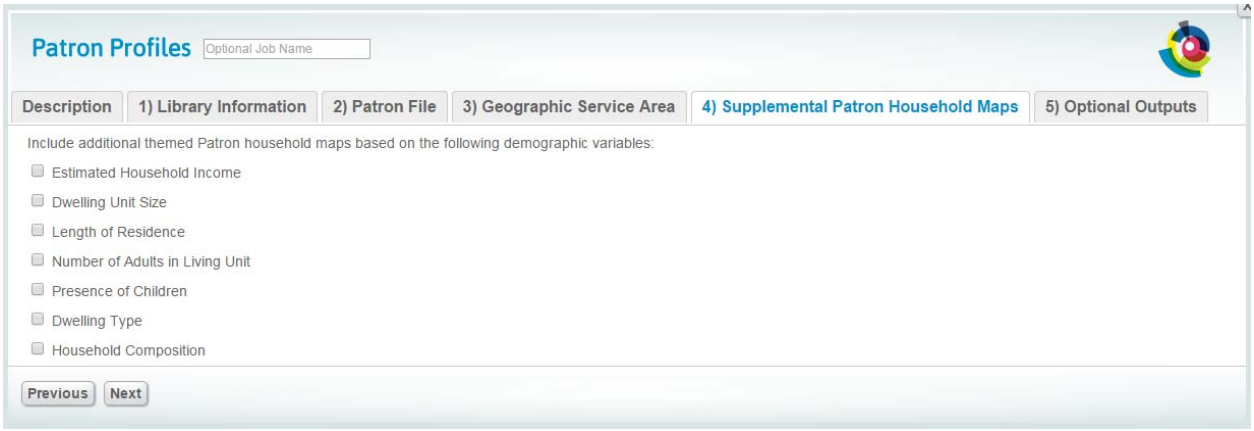


Click Next at the lower left side of the screen to proceed to the next tab.

3.1.6 Patron Profiles – Supplemental Patron Household Map

Your next step is to select any additional theme based maps you want to be produced based on your Patrons demographic data. Each of these reports will map your Patrons with color coded themes based on the demographic variable you have chosen. This is useful in getting a visual image of your service area and how the Patrons are distributed according to the variable you have chosen.

Note: Each additional map you select adds processing time to your report and increases the size of final report.



Select one or more supplemental maps by clicking the checkbox next to the report.

Click Next at the lower left side of the screen to proceed to the next tab.

3.1.7 Patron Profiles – Optional Outputs

The final step is to select any additional output you would like to see about the Patron data you have provided. We perform a thorough data cleansing and validation process at the beginning of each report and these options will help you identify where your data may need some additional work to produce better results.

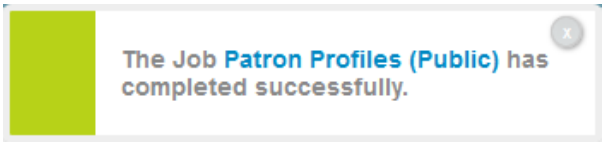
There are three optional outputs available.

a) **Summary of your patron data "health"** – this will create a report outlining the number of records found in your patron file with the number of good/bad records found as well as the number of records found on Experian. It will also tell you the reasons for any bad data that was found.
b) **Patron records with address or date issues** – this will create a downloadable file of all patron address records that were bad and the reason why they could not be processed.
c) **Patron records that failed to match to Experian households** – this will create a downloadable file of the patron addresses that could not be found on the Experian household file.

Note: There are several reasons for Experian not having a match for a specific household. Among other things a consumer needs to be active at an address for some amount of time before Experian can profile them. The household might could be vacant or for sale. Excluding the Suite number in areas of high rise and multiple dwelling units lowers your match rate. And finally, the Experian data is updated quarterly so it may take time to work itself through the system.

Selection the Optional Outputs is the final step in creating patron profiles. Click

at the lower left side of the screen to begin the analysis. When the analysis is finished, the following message appears on the screen if you are still logged on:



Please note that it is not necessary to wait until the analysis completes. By clicking

onat the upper right side of the screen, you can return to the original app screen and the analysis will run in the background.

You can also log out or execute another AOD app analysis. If you want to make minor modifications and re-run the analysis with a different filter, select the

button at the lower left side of the screen. All your information is saved and you can modify any earlier choices to re-run the analyis.

4.0 COLLECTION INTELLIGENCE

4.0 COLLECTION INTELLIGENCE

This section provides a detailed description of the *Collection Intelligence* app.

4.1 Collection Intelligence

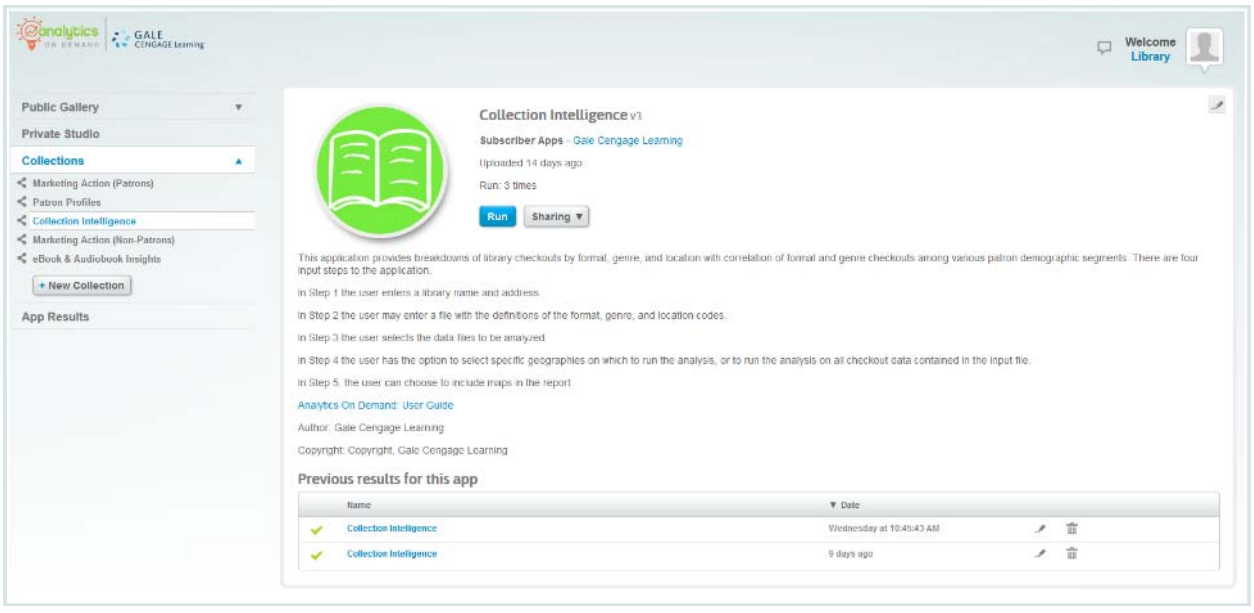
This section provides a detailed description of the *Collection Intelligence* app. This app explains what a public library's patrons are—and aren't—borrowing, so your library can make data-driven decisions and deliver drive meaningful outcomes for itself and the community.

The **Material and Genre Analysis** in *Collection Intelligence* can be used to craft marketing messages, develop targeted marketing lists, stock appropriate library materials, and identify target areas for promotion.

The app begins with an analysis of material types and genres (subjects) that are borrowed by all library patrons and then breaks the genres down into different Mosaic lifestyle clusters. The app then provides insight into the Mosaic lifestyle clusters and the genres borrowed by library patrons. The analysis covers only the specific geographic area you select.

4.1.1 Collection Intelligence – Initial Screen

The following screen appears when you click the *Collection Intelligence* app:

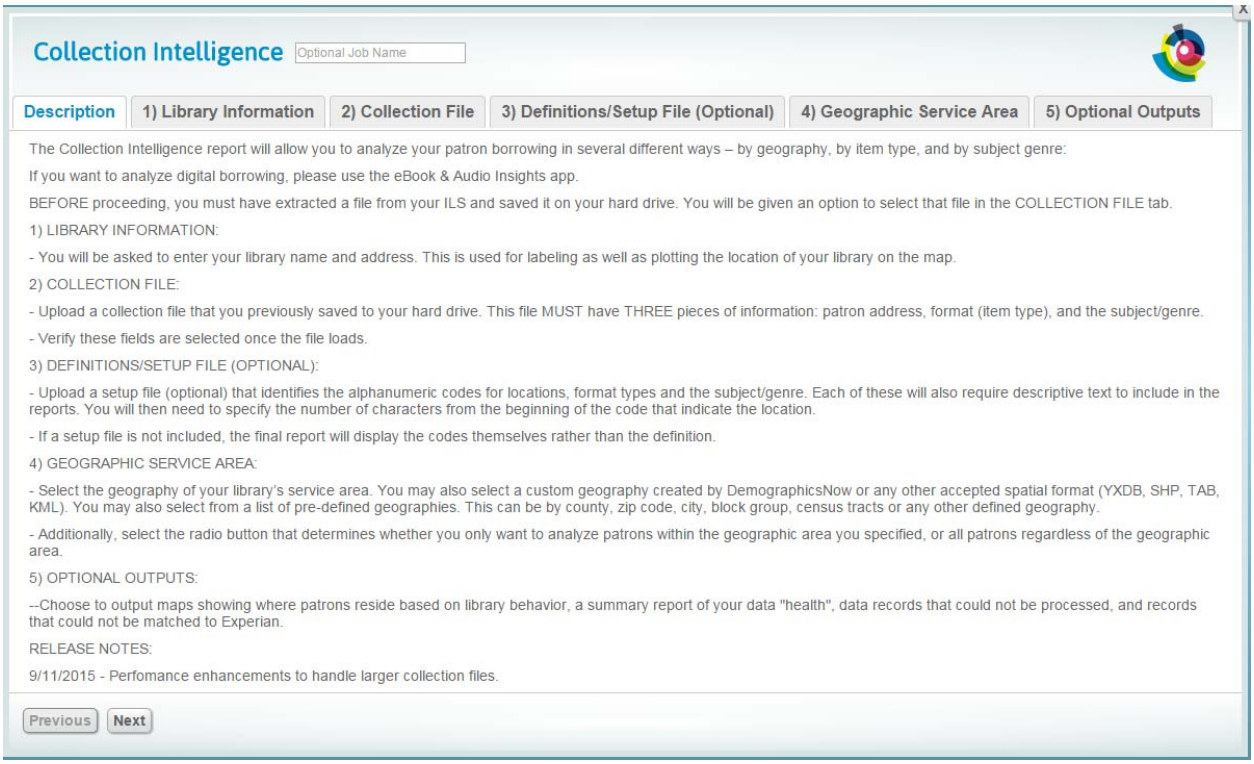


This screen provides the following key information:

- **Version number** – When the app is modified, the version number increments by one. Modifications may include enhancements, changes that accommodate input data files, and/or error corrections that are uncovered with repeated user access.
- **A summary description of the app** – "This application provides breakdowns of library checkouts by format, genre, and location with correlation of format and genre checkouts among various patron demographic segments. There are four input steps to the appoication. In Step 1 the user enteres a library name and address. In Step 2 th user may enter a file with the definitions of the format, genre, and location codes. In Step 3 the user selects the data files to be analyzed. In Step 4 the user has the option to select specific geographies on which to run the analysi, or to run the analysis for all checkout data contained in the input file."
- **Link to Analytics On Demand User Guide** – clicking on this link takes you directly to the AOD user guide
- **Listing of previous reports** – As discussed in Section 2.2.2, this list includes previous results (that you did not delete) which are currently stored on the Amazon cloud server.

4.1.2 Collection Intelligence – Description

When you click Run, the following screen appears. Note that the screen displays six tabs. (Some apps may have more or fewer tabs.) The **Description** tab explains what is required to run the app, including a high-level overview of the commands



This tab allows you to name an output report in the text box located in the top left portion of the screen:

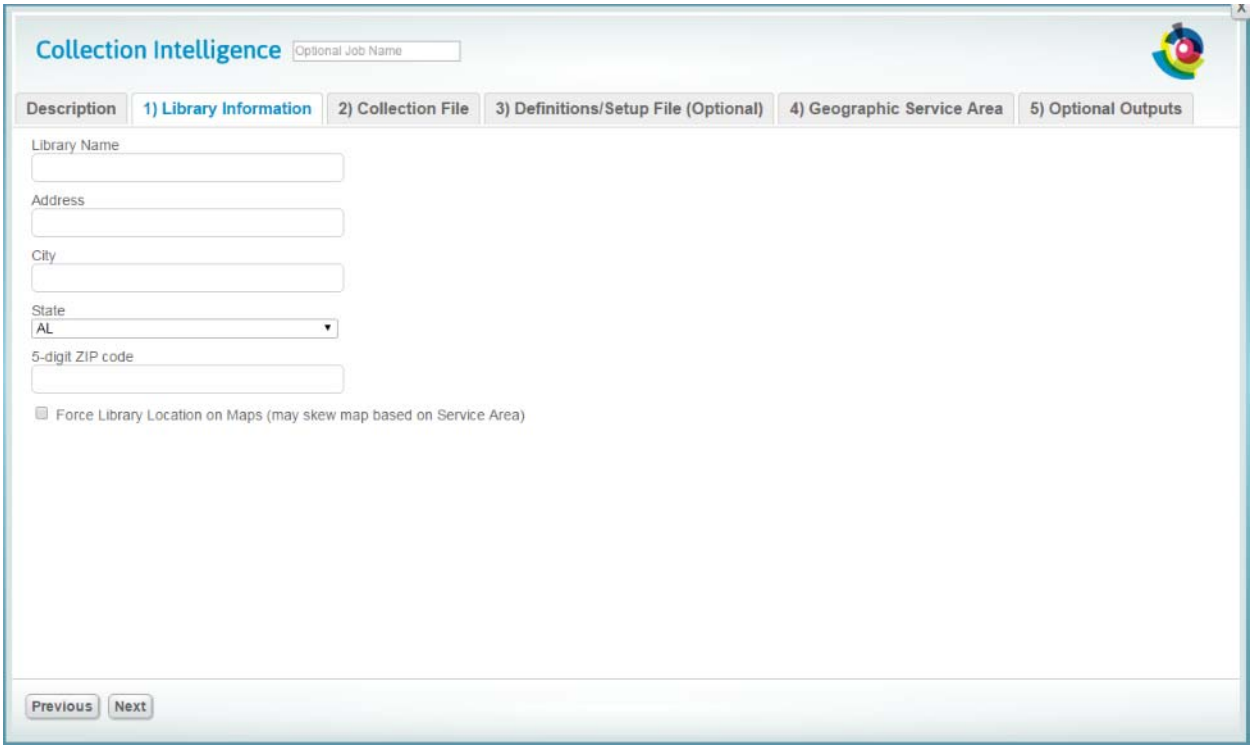
By using unique names, you can easily identify previous runs if you have not deleted them. You can name a report by the options selected or by the date on which it was run.

To proceed to the next tab, click the Next button on the lower left side of the screen or the tab at the top of the screen.

4.1.3 Collection Intelligence – Library Information

The **Library Information** tab provides boxes where you can input the name of your library and its address. This information is used for three purposes:

- To label the report generated
- To identify the spatial GIS point of the library's location in order to map this on map views in the report
- To calculate the drive time for each library patron from home to the library
- To choose whether or not to display the library location on any maps views when it is outside of the selected Service Area



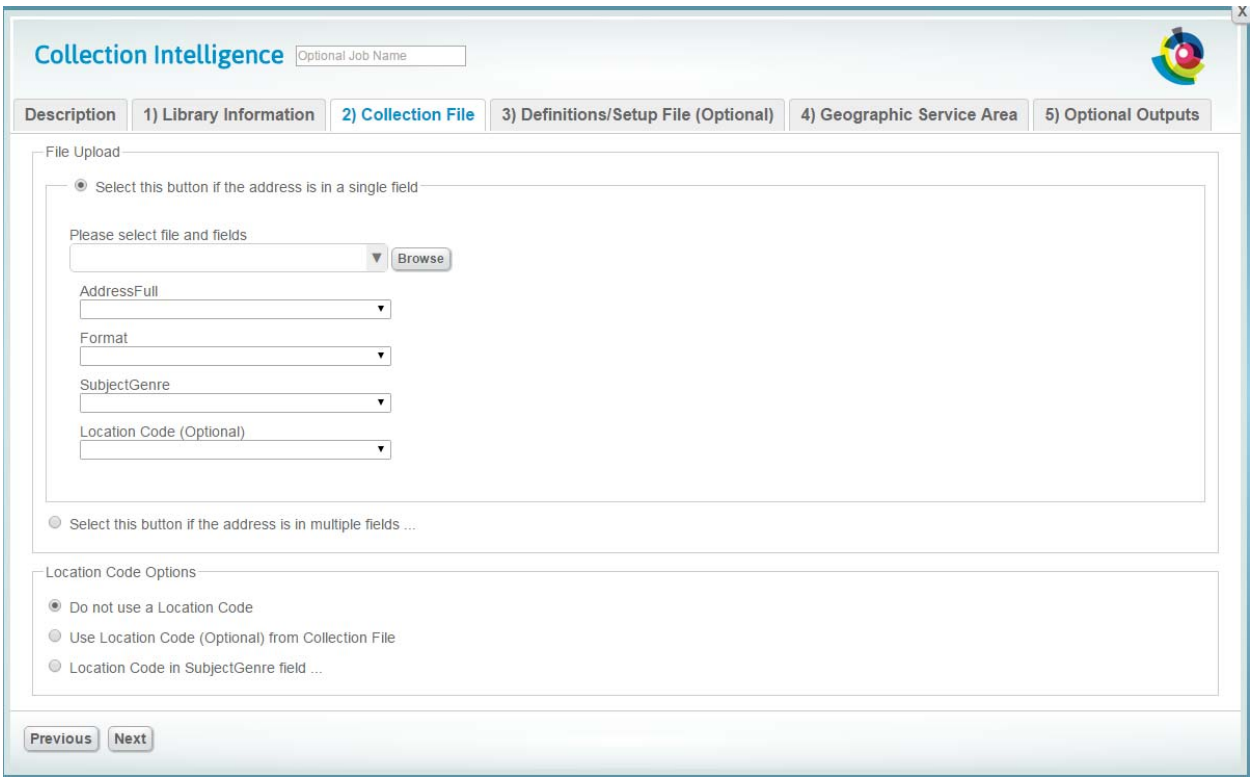
Click Next at the bottom left side of the screen to proceed to the next tab.

4.1.4 Collection Intelligence – Collection File

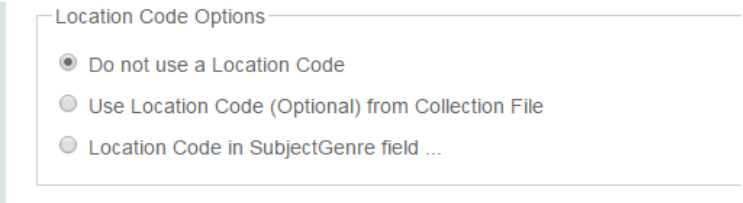
Your next step is to upload a data file—typically an Excel file—from your ILS. This file requires three pieces of information: a) borrowed item format, b) the subject/genre identifier, which is usually a high-level identifier that facilitates returning printed material to the shelf and c) the patron address.

You can choose the types of data to include in the file. For example, it can include any type of format identifier you want to analyze. Or any subject/genre identifier can be used if it exists in the ILS. This capability allows filtering not only by the *Collection Intelligence* app—more on this to follow—but also by the ILS extract used to create the AOD input file.

The following screenshot displays an input file that includes patron address in one column. Depending on your ILS, the patron address may be extracted and placed in multiple columns—one/two for street address, one for city, one for state, and one for ZIP code. The view presented depends on the radio button you choose. The single-column address view is the default.



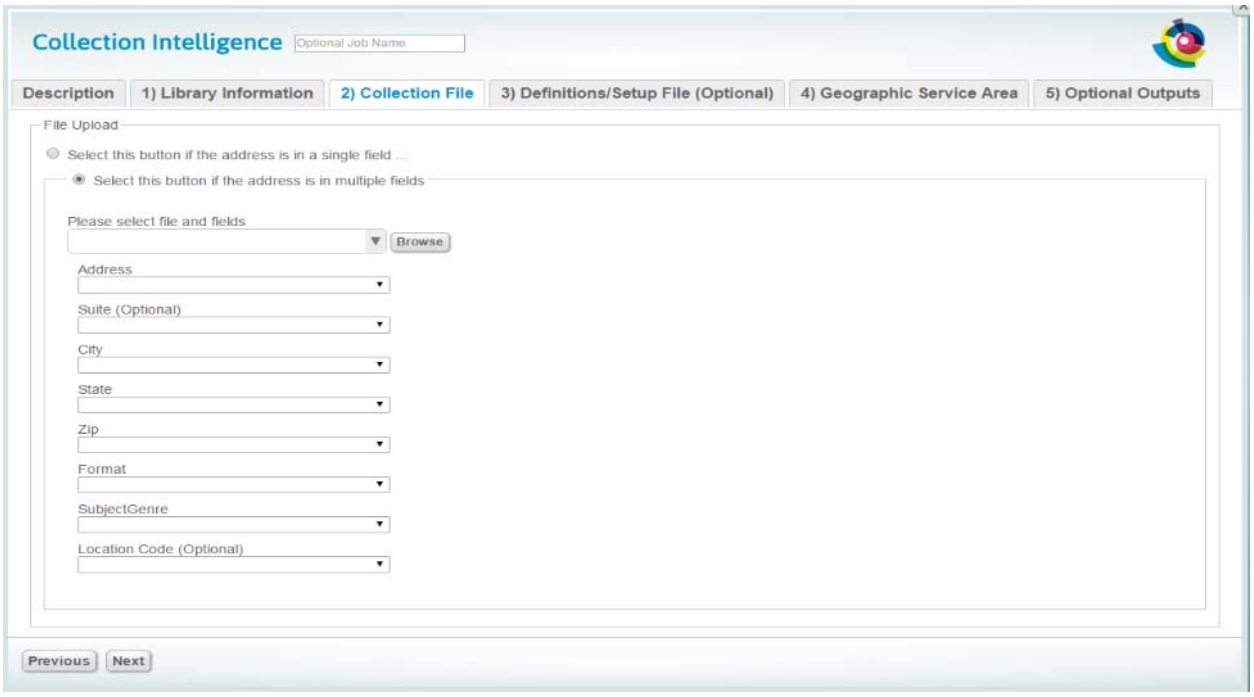
The next question you must answer is whether the input file uses a location identifier. These identifiers are normally used by a multi-branch library. They identify physical branch locations.



There are three options for Location Code.

a) **Do not use a Location Code** – If your library does not use a location identifier select this option.
b) **Use Location Code from Collection File** – Choose this option if you have a Location Code available in your Collection file that is separate from the Subject/Genre Field. **Note**: if you use this option you must map the Location Code (Optional) field for your Collection file.
c) **Location Code in Subject/Genre field** - If your library uses location identifiers as part of the Subject/Genre field the use this option. You will need to specify the number of characters at the beginning of the Subject/Genre field that identifies the location. The default length is two (2) characters.

The following screenshot displays shows the patron address in multiple columns.

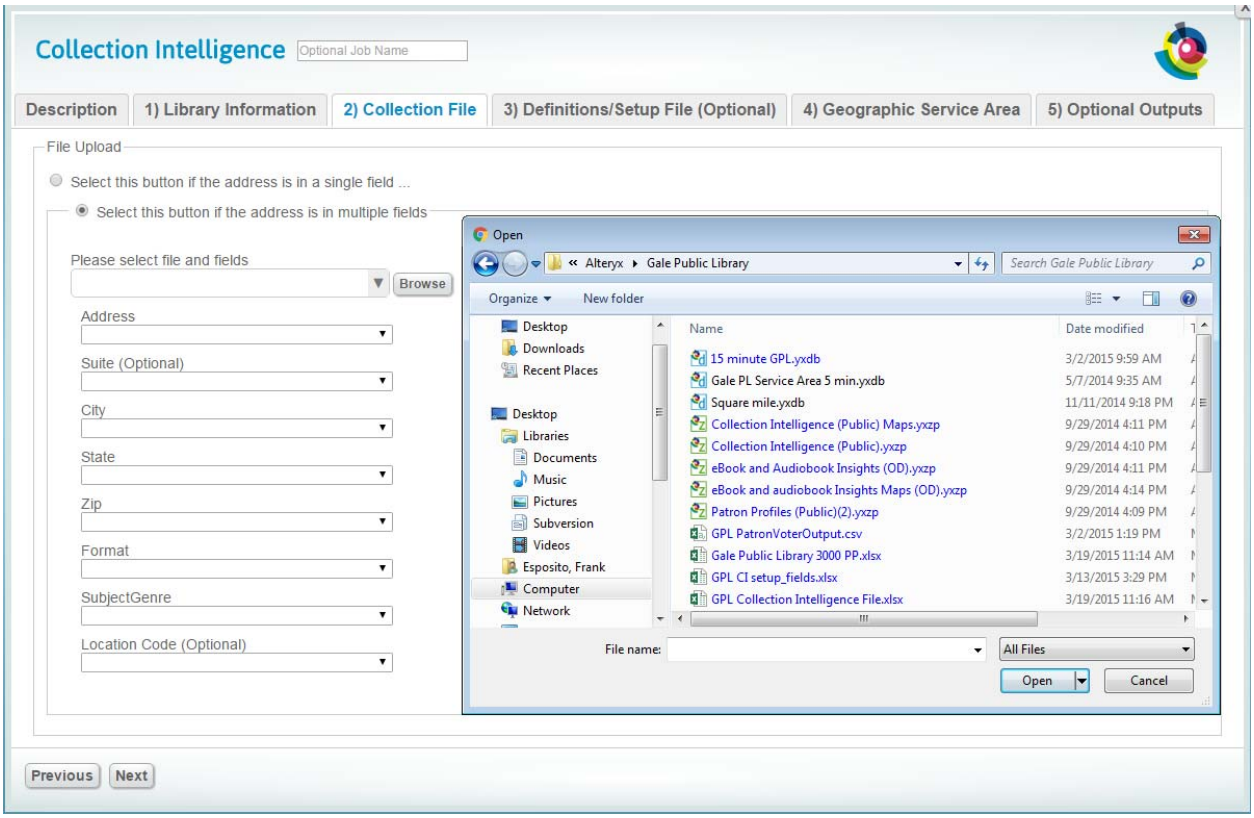


After you have selected the address format for your input file, click the Browse button to browse input files on your hard drive and/or network drive for uploading. This process is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You must have already extracted your input file from your ILS before accessing the app.

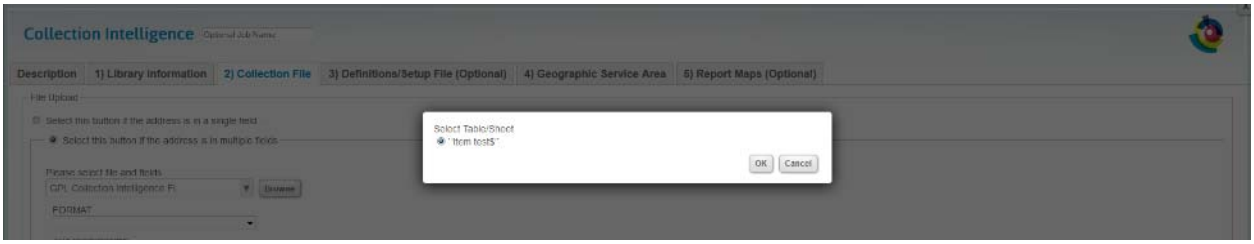
It is also critical that the format of the input file is identical to the sample file previously submitted to Gale during the validation phase of ordering. Changing the format may prevent the app from running properly. If any problems occur during running the app, contact Gale Customer Care.

As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.



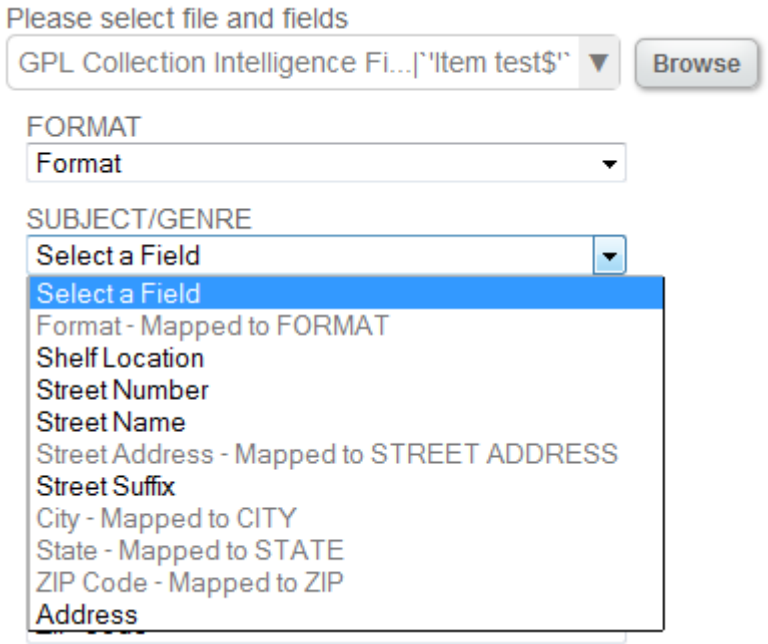
After you select the file, AOD asks you to confirm that the spreadsheet it selected from the input file is the correct one by clicking OK.

Note: Excel workbooks can contain multiple spreadsheets, which is why it is important to confirm the selection.



After you have confirmed the selection, AOD loads the file into the app and attempts to match the columnar fields in the input file to the names on each of the fields identified in this tab (address, checkouts, and active date). If the heading in the input file is similar to the descriptive name on the screen AOD auto-selects that column. Verify that the app has selected the correct columns of data. If not, click the drop-down **Select a field** list to deselect the choice made and replace it with the correct choice.

On fields that AOD has not auto-selected, click the drop-down list of the remaining fields and match the correct field in the input file to the required field.



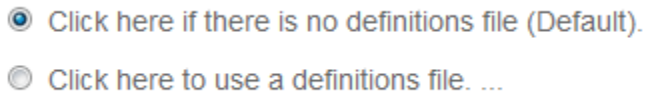
After aligning the necessary fields, click

at the lower left side of the screen to proceed to the next tab.

4.1.5 Collection Intelligence – Definitions/Setup File (Optional)

The **Definitions/Setup File (Optional)** tab is where you define the textual descriptions of codes stored in your ILS (if you use them).

The default is **No**. A definitions file is an Excel spreadsheet that translates code (identified in one column) to textual description (identified in another column).

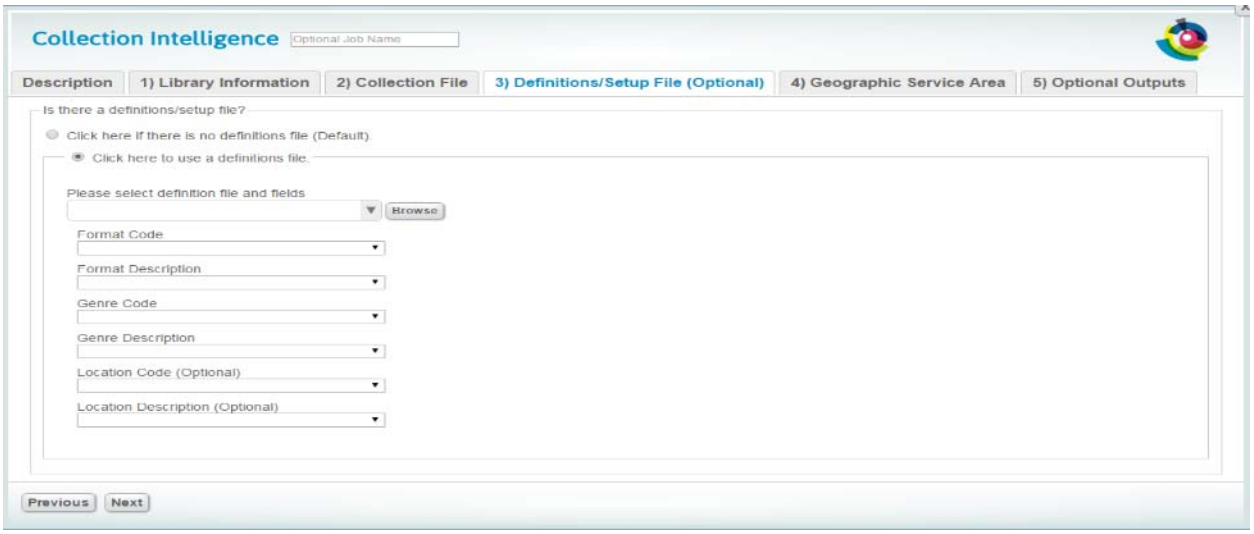


The definition file requires code and textual descriptors for format, subject/genre, and location (if used). If an ILS extract already uses a textual description of format, subject/genre, and location (if used), you usually do not use a definitions file. The following example shows a typical definition file:

Format Code	Format Description	Location code	Location Description	Genre code	Genre description
1	Adult Book	9x	Other libraries	xxx	Ignore
2	Unused	ad	Administration	abr	Blu-ray
3	Unused	cc	Farmington	acm	Cassette-Music
4	Music CD	cw	Bloomfield - East	acs	Cassette-Spoken
5	Unused	da	Bloomfield - West	adr	CD ROM
6	DO NOT USE-Video	il	Bloomfield - North	adv	DVD

If you choose to use a definitions file, click **Click here to use a definitions file…** The data input screen will expand, allowing you to browse files on your hard drive/network and chose one.

After you select a file, you will be asked to confirm the specific worksheet you have chosen. You will be required to match the correct column in each of the drop-down menus that aligns the spreadsheet to the format code and description and the genre code and description. The **Location Code** and **Location Description** drop-down lists are optional and need only be matched/aligned with the file columns if you use location identifiers.

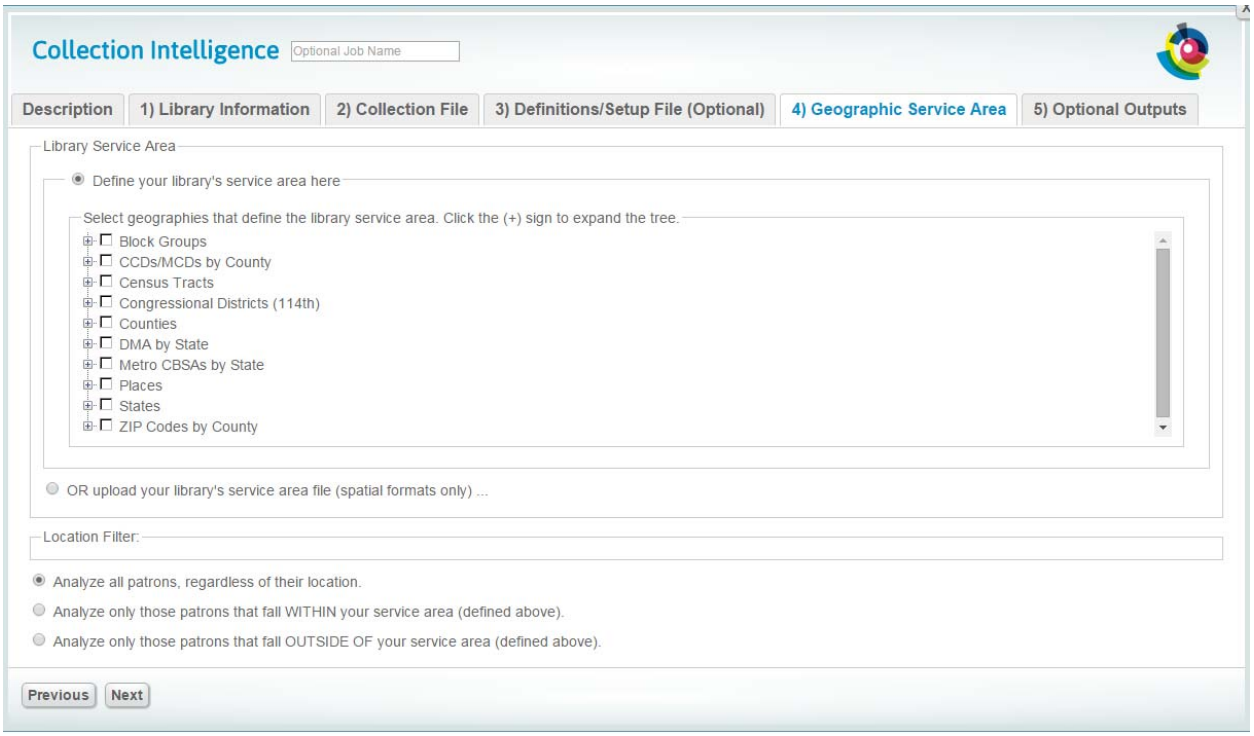


Click

at the bottom left side of the screen to proceed to the next tab.

4.1.6 Collection Intelligence – Geographic Service Area

Your next step is to identify the geographic area you want to analyze. Examples of geographies include a) the library's service area, b) surrounding geographies outside the service area (to analyze patrons who use the library but don't reside in the service area, c) smaller geographies, such as census tracts and block groups (to analyze specific neighborhoods).



You can select geographies from the geography tree menu or upload a custom geography (GIS) spatial file. Spatial files from either MapInfo or ESRI must be packaged within a zipped folder before uploading. This app also accepts Alteryx (YXDB) and Google Earth (KML) format spatial files.. If you are loading a spatial file, click the OR Upload your library's service area file (spatial formats only) button and then click on

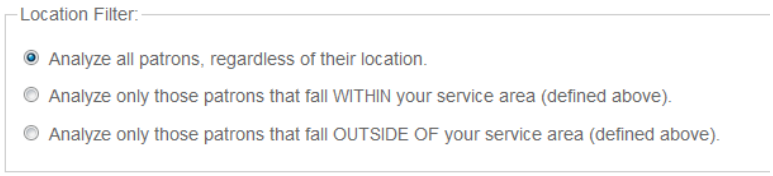
button and locate the **spatial file** in the directory you previously saved it and select it. When the file appears in the file window, move to the next filtering question, which appears after the geography tree.

After you select a geography, scroll down the screen and choose the final filter: whether to include or exclude patrons outside the geography selected.

Note: If you are interested in a county, do not select all its block groups. AOD calculates the smallest geography first and adds each individual selection to it. If you select all its block groups, calculations may take hours.

After you select a geography, scroll down the screen to the final filter: whether to include or exclude patrons outside the geography selected.

Finally, the **location filter** looks at whether patrons live inside or outside the library service area. The default includes all patrons, regardless of where they live. Clicking **Analyze only those patrons that fall WITHIN your service area (defined above)** includes patrons only if their addresses lie within the service area geography you defined earlier. Clicking **Analyze only those patrons that fall OUTSIDE OF your service area (defined above)** includes patrons only if their addresses lie outside the service area geography you defined earlier.



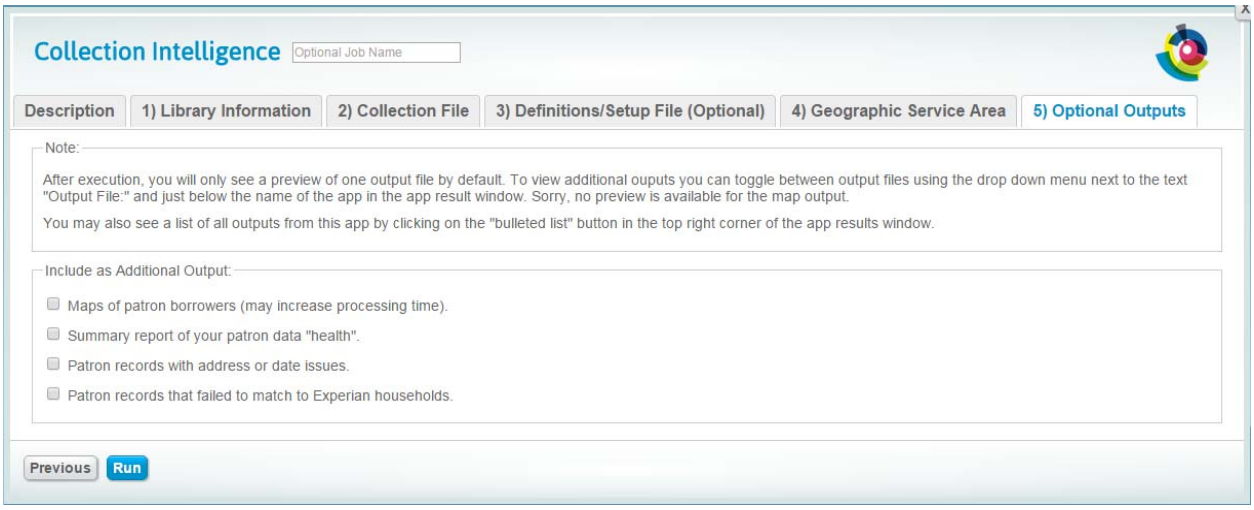
After selecting the **patron filter**, click

at the lower left side of the screen to proceed to the next tab.

4.1.7 Collection Intelligence Insights – Optional Outputs

The final step in the process before running the report is to decide whether you want to include maps and other optional reports/files in the output. The maps include visuals of the home locations, arranged by material type and genre, of patrons who have checked out materials.

The maps add a useful visual enhancement to the analysis of the charts and tables of the base report. With the maps, you can see at a glance which portion of your trade area tends to check out various genres and formats most often.



There are four optional outputs available.

a) **Maps of patron borrowers -** These maps include visuals of the home locations, arranged by material type and genre, of patrons who have checked out materials. The maps add a useful

visual enhancement to the analysis of the charts and tables of the base report. With the maps, you can see at a glance which portion of your trade area tends to check out various genres and formats most often. **Note:** Selecting the additional maps adds processing time to your report and increases the size of final report.

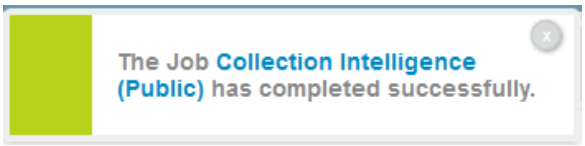
b) **Summary of your patron data "health"** – this will create a report outlining the number of records found in your patron file with the number of good/bad records found as well as the number of records found on Experian. It will also tell you the reasons for any bad data that was found.
c) **Patron records with address or date issues** – this will create a downloadable file of all patron address records that were bad and the reason why they could not be processed.
d) **Patron records that failed to match to Experian households** – this will create a downloadable file of the patron addresses that could not be found on the Experian household file.

Note: There are several reasons for Experian not having a match for a specific household. Among other things a consumer needs to be active at an address for some amount of time before Experian can profile them. The household might could be vacant or for sale. Excluding the Suite number in areas of high rise and multiple dwelling units lowers your match rate. And finally, the Experian data is updated quarterly so it may take time to work itself through the system.

Simply click the box to include the options you want or leave it blank if you elect not to.

Selecting maps is the final step in this process. Click

at the lower left side of the screen to begin the analysis. When the analysis completes, the following message will appear on screen if you are still logged on:



Please note that it is not necessary to wait until the analysis completes. By clicking

on the upper right side of the screen, you can return to the original app screen and the analysis will run in the background.

You can also log out or execute another AOD app analysis. If you want to make minor modifications and re-run the analysis with a different filter, select the

button at the lower left side of the screen. All your information is saved and you can modify any earlier choices to re-run the analyis.

5.0 EBOOK AND AUDIOBOOK INSIGHTS

5.0 EBOOK AND AUDIOBOOK INSIGHTS

This section provides a detailed description of the *eBook & audioBooks Insights* app. This app is designed to work with input files from multiple electronic eBook vendors, providing the data input format follows the app required input.

5.1 eBook & AudioBook Insights

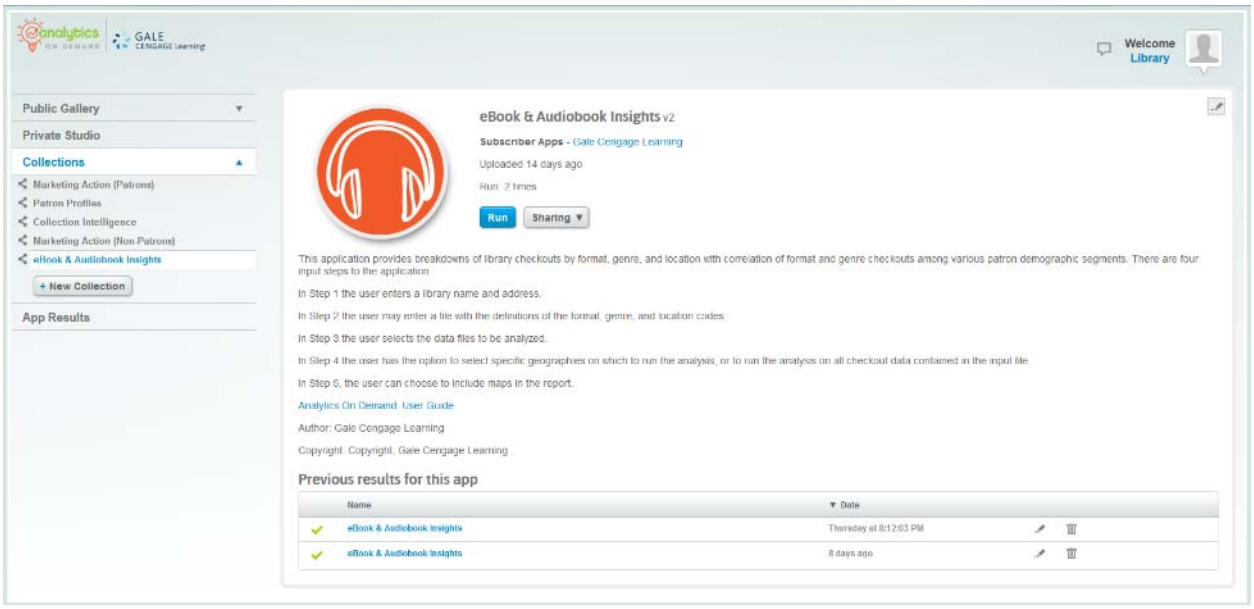
This section provides a detailed description of the *eBook & audioBook Insights* app. This app explains the electronic materials a public library's customers are—and aren't—borrowing on the eBook platform. It enables a public library to make data-driven decisions and drive meaningful outcomes for itself and the community it serves.

You can use *eBook & audioBook Insights* reports to craft marketing messages, develop targeted marketing lists, configure appropriate eBook content material, and identify target areas for promotion.

The app begins with an analysis of the genres that are borrowed by library patrons within the eBook platform in total and then breaks the genres down into different Mosaic lifestyle clusters. The breakouts provide insight into which genres your high-use patrons are borrowing most frequently.

5.1.1 eBook & AudioBook Insights – Initial Screen

The following screen appears when you click the *eBook & AudioBook Insights* app:



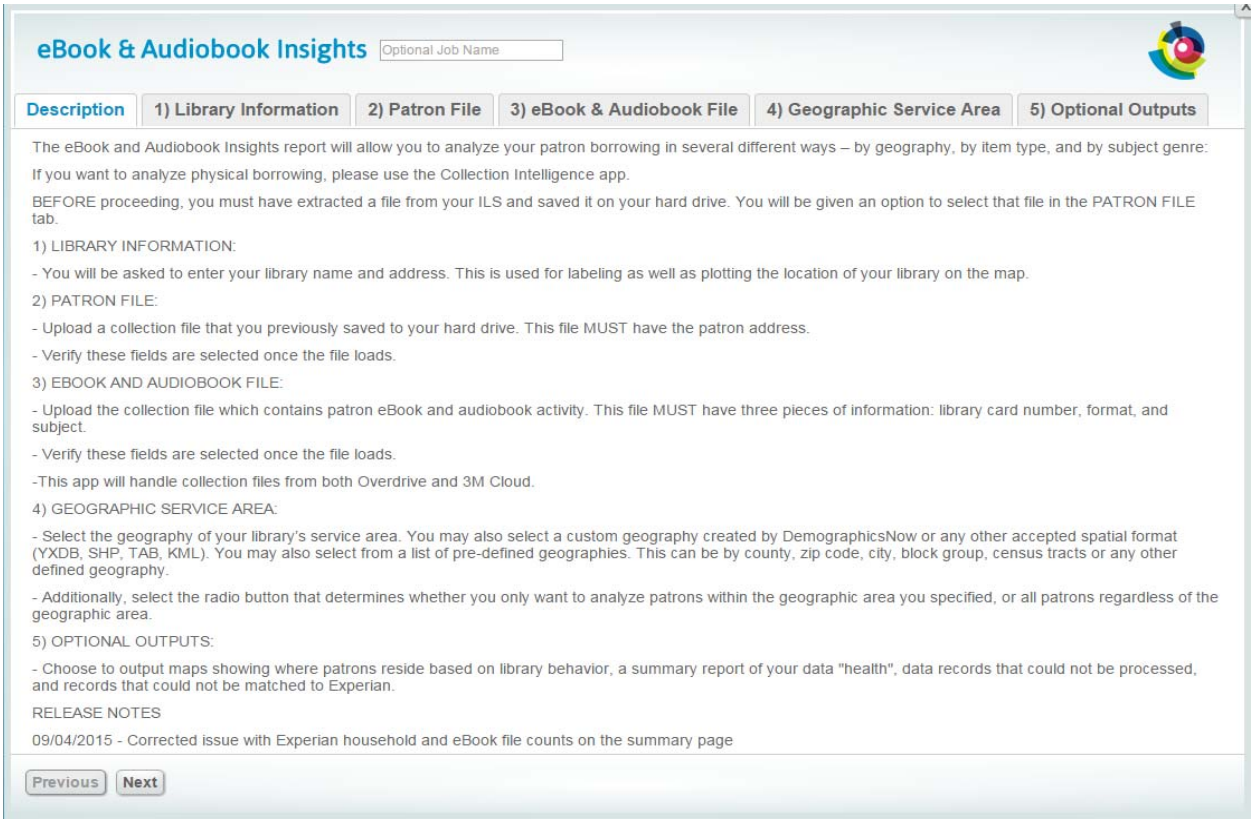
This screen provides the following key information:

> **Version number** – When the app is modified, the version number increments by one. Modifications may include enhancements, changes that accommodate input data files, and/or error corrections that are uncovered with repeated user access.

- **A summary description of what the eBook and AudioBook Insights app does:** "This application provides breakdowns of library checkouts by format, genre, and location with correlation of format and genre checkouts among various patron demographic segments. There are five input steps to the application."
- **Link to Analytics On Demand User Guide** – clicking on this link takes you directly to the AOD user guide.
- **Listing of previous reports** – As discussed in Section 2.2.2, this list includes previous results (that you did not delete) which are currently stored on the Amazon cloud server.

5.1.2 eBook & AudioBook Insights– Description

When you click Run, the following screen appears. Note that the screen displays six tabs. (Some apps may have more or fewer tabs.) The **Description** tab explains what is required to run the app, including a high-level overview of the commands.



This tab allows you to name an output report in the text box located in the upper left portion of the screen:

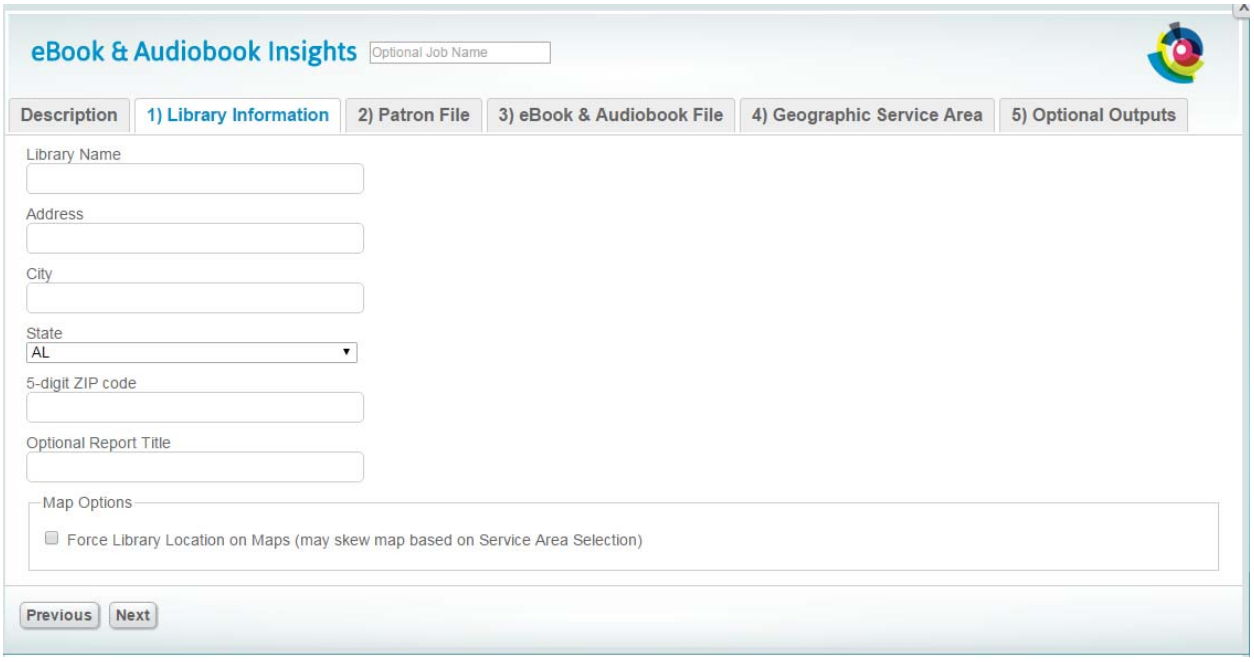
By using unique names, you can easily identify previous runs if you have not deleted them. You can name a report by the options selected or by the date on which it was run.

To proceed to the next tab, click the Next button on the lower left side of the screen or the tab at the top of the screen.

5.1.3 eBook & AudioBook Insights – Library Information

The **Library Information** tab provides boxes where you can input the name of your library and its address. This information is used for three purposes:

- To label the report generated
- To identify the spatial GIS point of the library's location in order to map this on map views in the report
- To calculate the drive time for each library patron from their home to the library
- To choose whether or not to display the library location on any maps views when it is outside of the selected Service Area



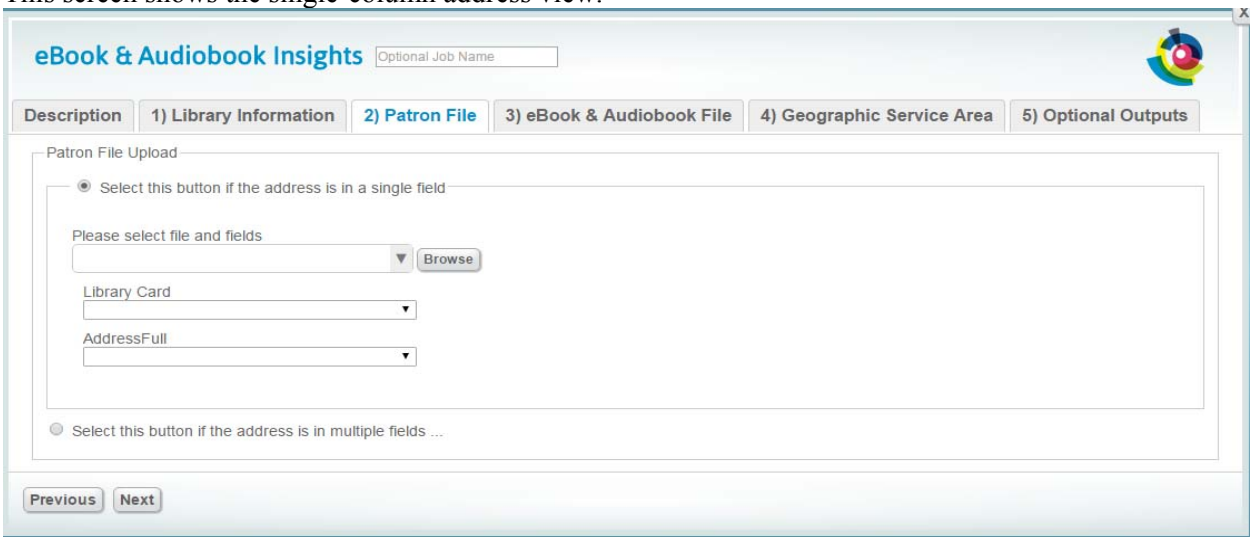
Click Next at the lower left side of the screen to proceed to the next tab.

5.1.4 eBook & AudioBook Insights – Patron File

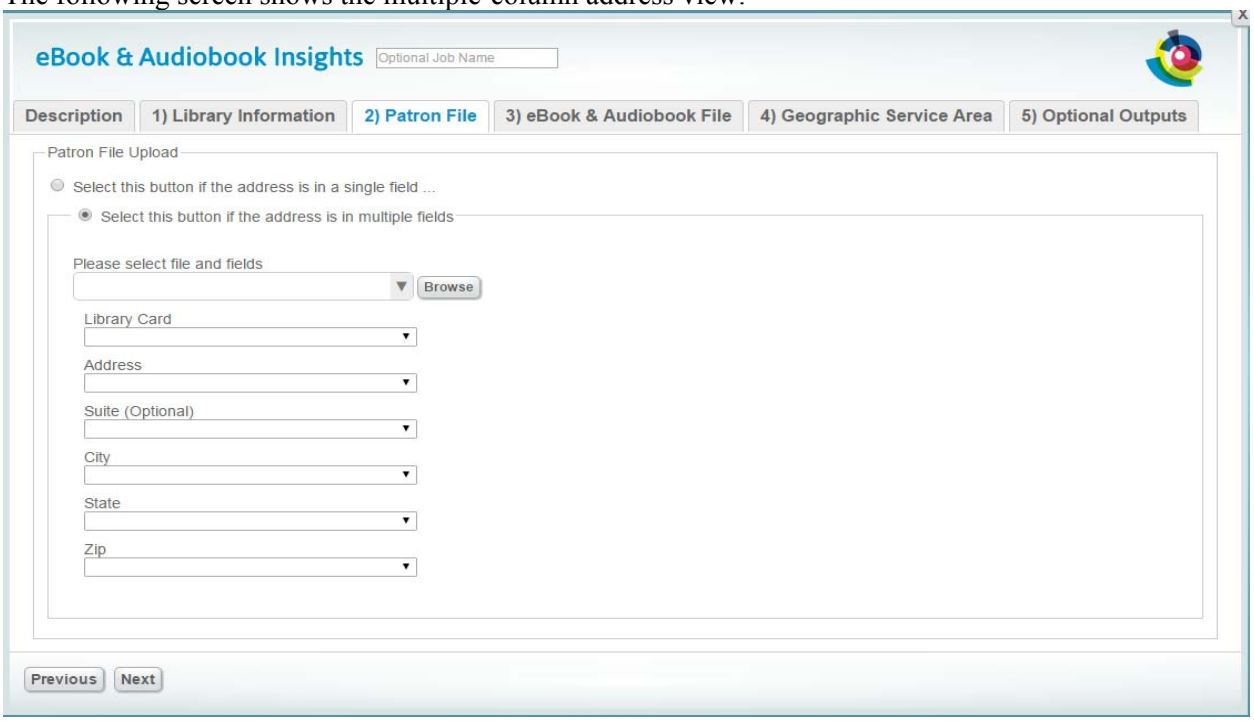
The next tab, **Patron File**, is where you upload the patron data file—normally an Excel— from your ILS. This file requires two specific pieces of information: a unique patron identifier (the patron's library card number or eBook platform identifier) and the patron's address.

The following screenshots show data for an input file that includes a patron address. Depending on your ILS, a patron address may be extracted and placed in multiple columns—one or two for street address, one for city, one for state, and one for ZIP code. The view presented depends on the radio button you choose. The single-column address view is the default.

This screen shows the single-column address view.



The following screen shows the multiple-column address view.

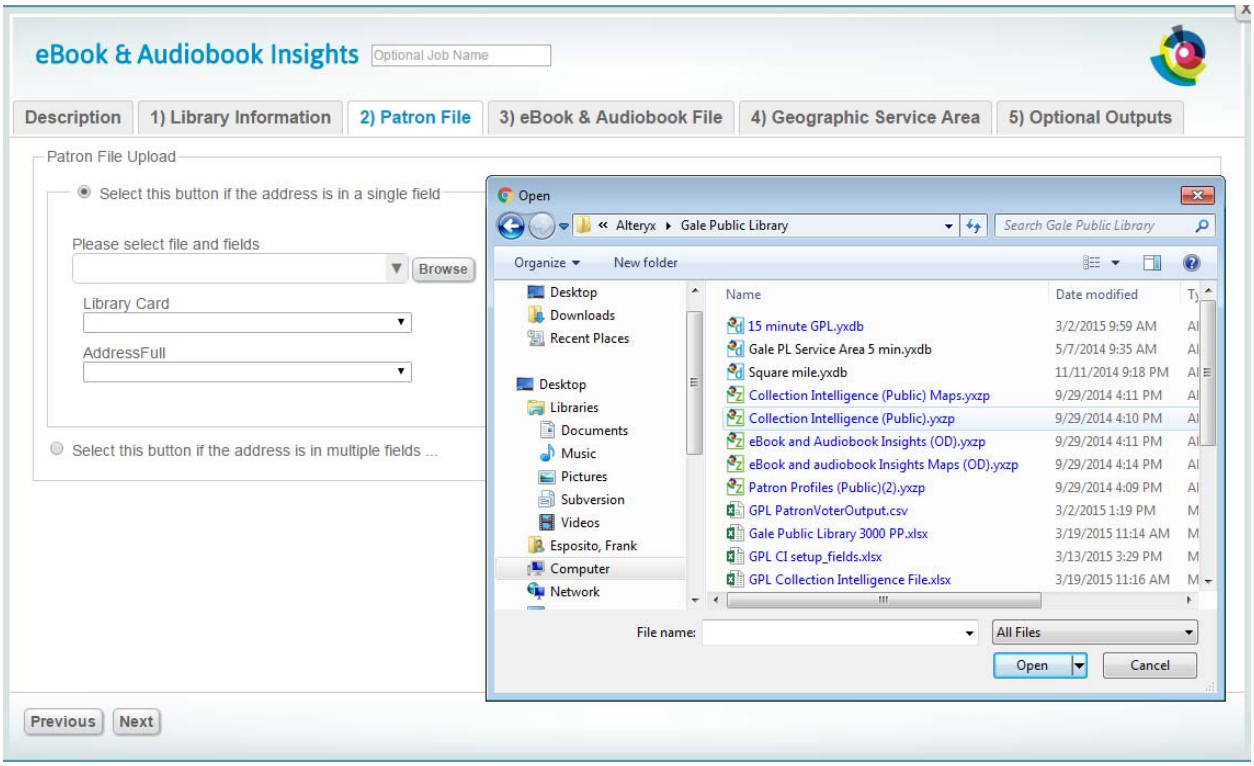


Once you select the address radio button for your input file, the next step is to click the Browse button to browse input files located on your hard drive and/or network drive for uploading. This process is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You must have already extracted your input file from your ILS before accessing the app.

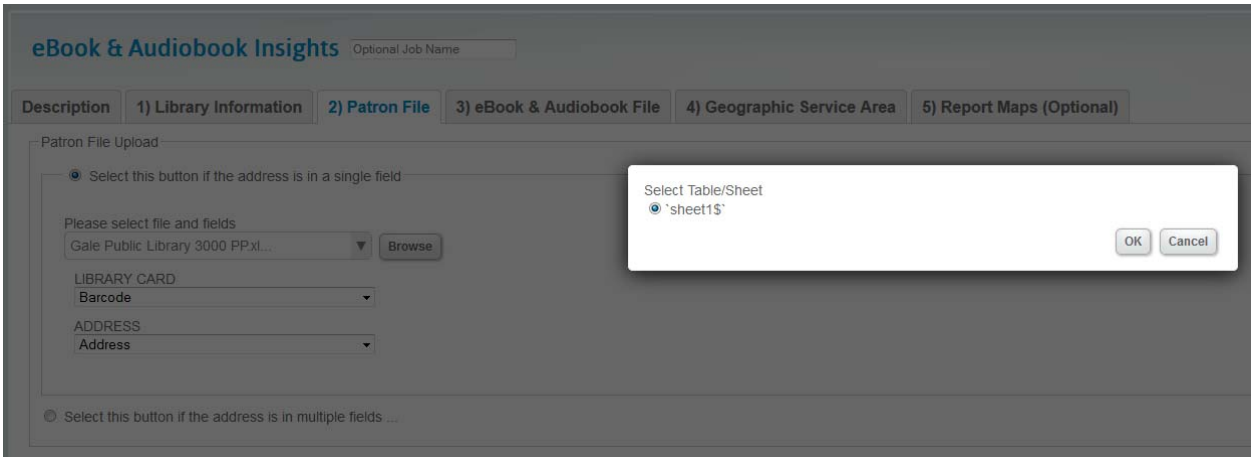
It is also critical that the format of the input file is identical to the sample file previously submitted to Gale during the validation phase of ordering. Changing the format may prevent the app from running properly. If any problems occur during running the app, contact Gale Customer Care.

As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.



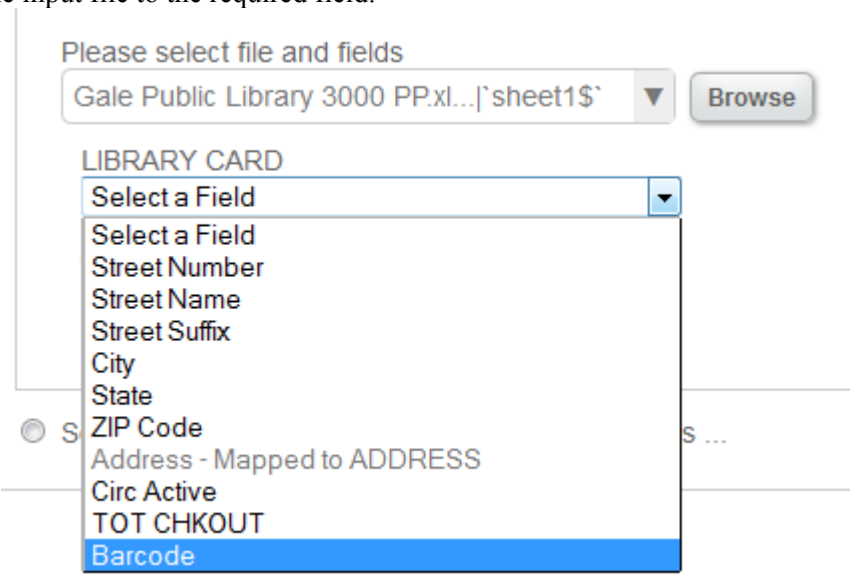
After you select the file, AOD asks you to confirm that the spreadsheet it selected from the input file is correct by clicking OK.

Note: Excel workbooks can contain multiple spreadsheets, which is why it is important to confirm the selection.



After you have confirmed the selection, AOD loads the file into the app and attempts to match the columnar fields in the input file to the names on each of the fields identified in this tab (library card, and address). If the heading in the input file is similar to the descriptive name on the screen AOD auto-selects that column. Verify that the app has selected the correct columns of data. If not, click the drop-down **Select a field** list to deselect the choice made and replace it with the correct choice.

On fields that AOD has not auto-selected, click the drop-down list of the remaining fields and match the correct field in the input file to the required field.

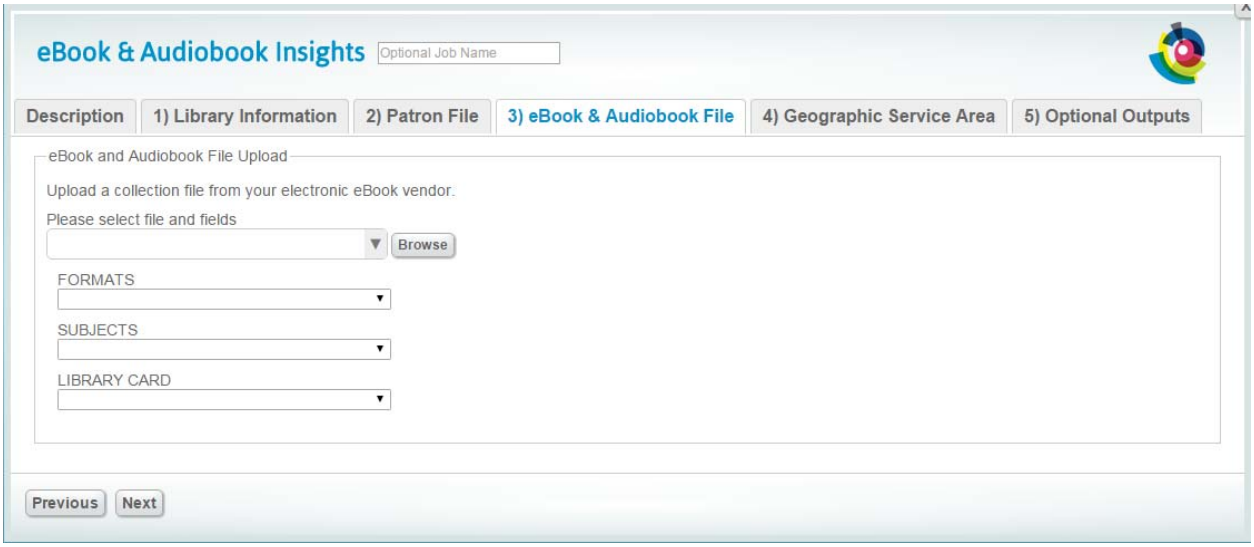


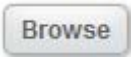
Click at the lower left side of the screen to proceed to the next tab.

5.1.5 eBook & AudioBook Insights – eBook and AudioBook File

Your next step is to upload a data file—typically an Excel file—from your eBook platform System. This file requires three specific pieces of information: a) borrowed item format, b) the subject/genre identifier, which is usually a high-level identifier that facilitates returning printed material to the shelf, and c) the unique patron identifier (library card number or eBook platform patron number if it is also stored in the ILS).

You can choose the types of data to include in the file. For example, it can include any type of format identifier you want to analyze. Or you can use any subject/genre identifier if it exists in the eBook platform system. This capability allows filtering not only by the *eBook & Audiobook Insights* app—more on this to follow—but also by the eBook platform extract used to create the AOD input file.

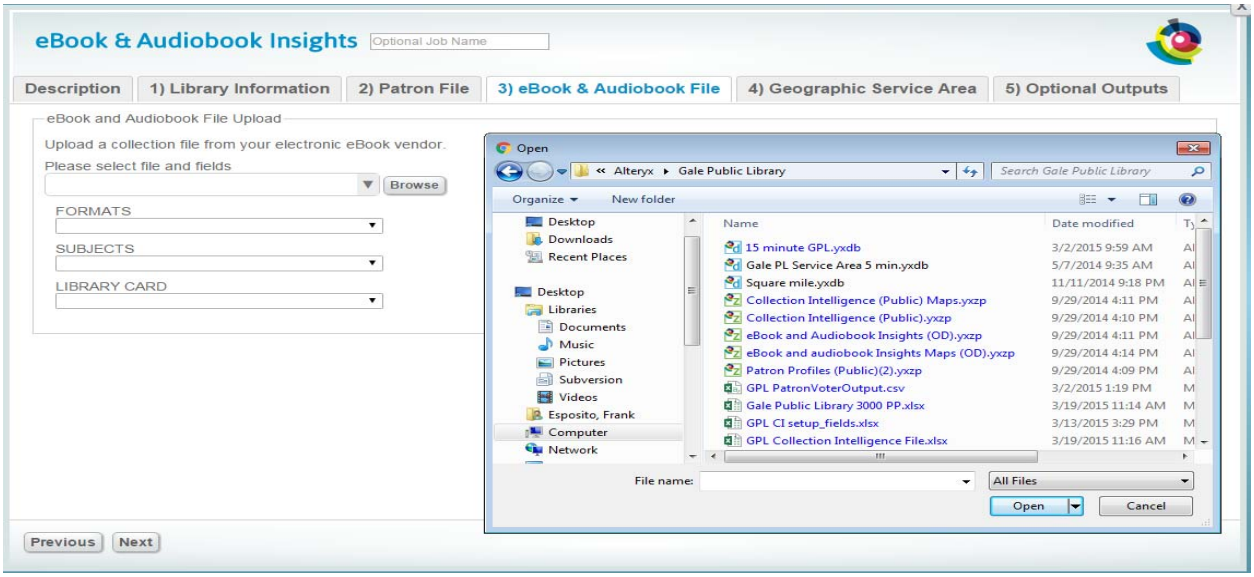


The next step is to click 

to browse input files located on your hard drive and/or network drive for uploading. This process is very similar to attaching a document to an email. After clicking on browse, a pop-up screen asks you to identify the directory where the input file is located.

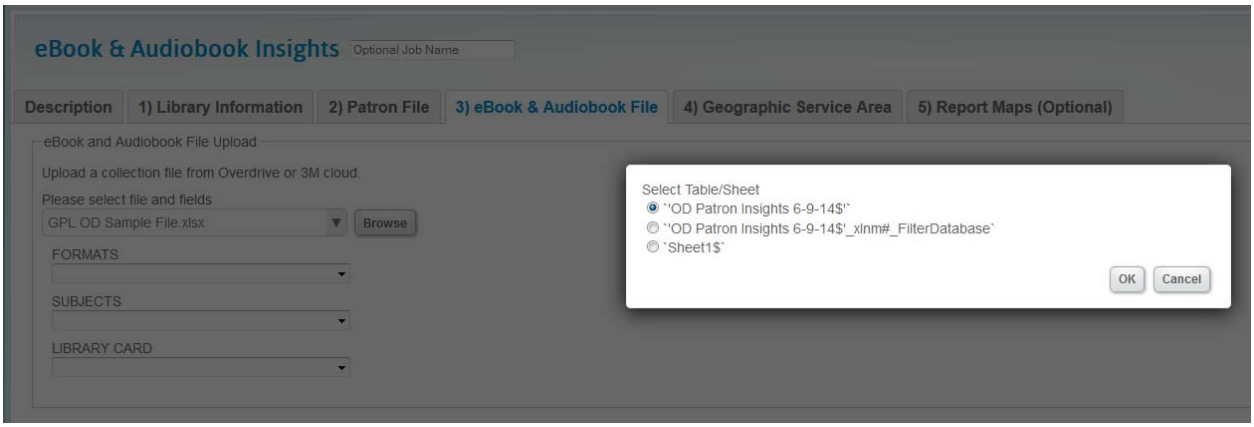
Note: You must have already extracted your input file from your ILS before accessing the app.

It is also critical that the format of the input file is identical to the sample file previously submitted to Gale during the validation phase of ordering. Changing the format may prevent the app from running properly. If any problems occur during running the app, contact Gale Customer Care.



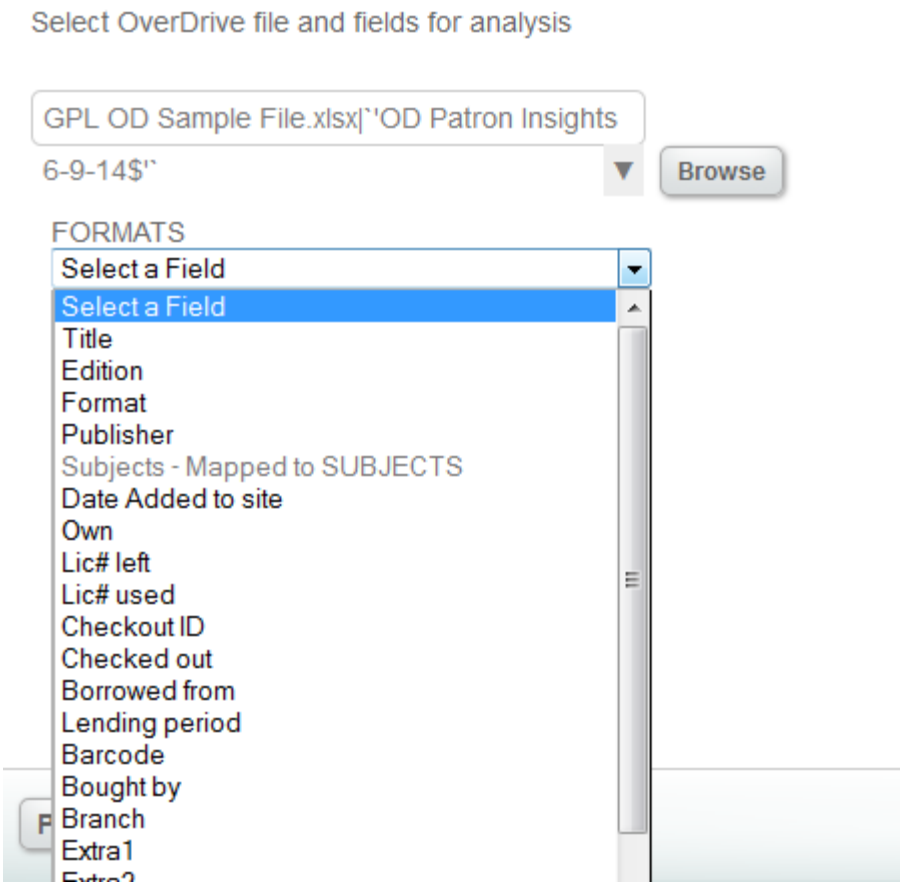
After you select the file, the AOD system asks you to confirm that the spreadsheet it selected from the input file is correct by clicking OK.

Note: Excel workbooks can contain multiple spreadsheets, which is why it is important to confirm the selection.



After you have confirmed the selection, AOD loads the file into the app and attempts to match the columnar fields in the input file to the names on each of the fields identified in this tab (formats, subjects and library card). If the heading in the input file is similar to the descriptive name on the screen AOD auto-selects that column. Verify that the app has selected the correct columns of data. If not, click the drop-down **Select a field** list to deselect the choice made and replace it with the correct choice.

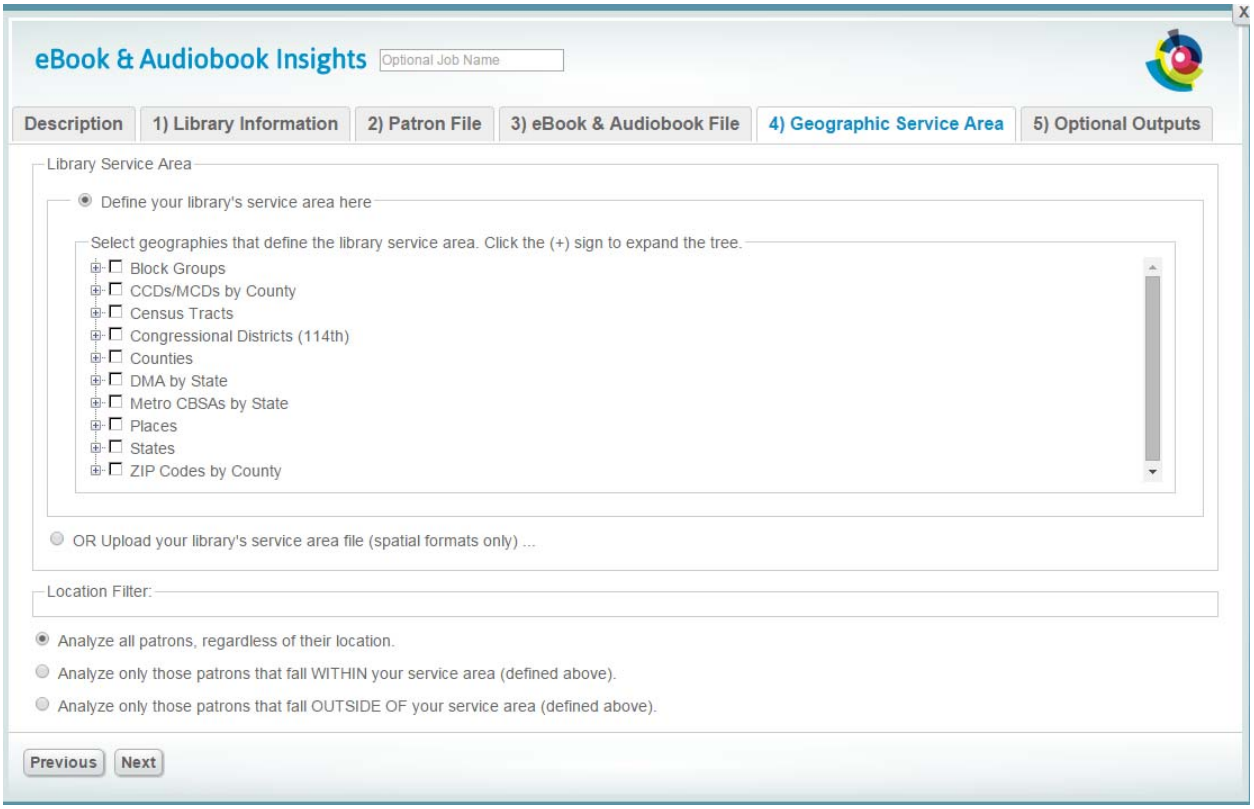
On fields that AOD has not auto-selected, click the drop-down list of the remaining fields and match the correct field in the input file to the required field.

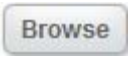


Click at the lower left side of the screen to proceed to the next tab.

5.1.6 eBook & AudioBook Insights – Geographic Service Area

Your next step is to identify the geographic area you want to analyze. Examples of geographies include a) the library's service area, b) surrounding geographies outside the service area (to analyze patrons who use the library but don't reside in the service area, c) smaller geographies, such as census tracts and block groups (to analyze specific neighborhoods).



You can select geographies from the geography tree menu or upload a custom geography (GIS) spatial file. Spatial files from either MapInfo or ESRI must be packaged within a zipped folder before uploading. This app also accepts Alteryx (YXDB) and Google Earth (KML) format spatial files. If you are loading a spatial file, click the OR Upload your library's service area file (spatial formats only) button and then click on  button and locate the **spatial file** in the directory you previously saved it and select it. When the file appears in the file window, move to the next filtering question, which appears after the geography tree.

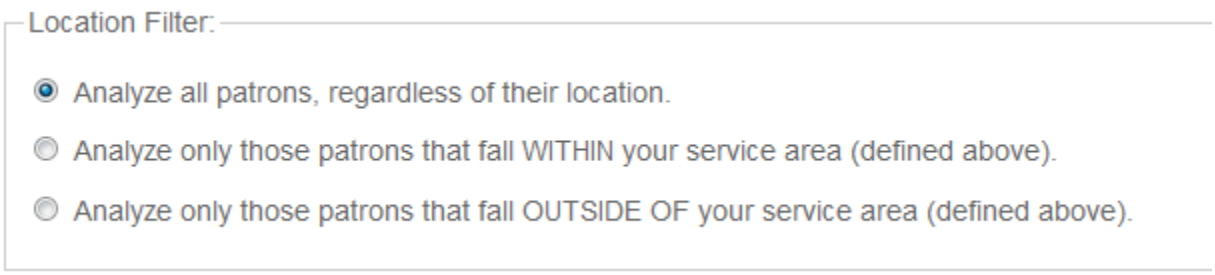
When the file appears in the file window, bypass the geography tree and move to the next filter, which appears after the geography tree.

If selecting a geography from the geography tree, first locate the type of geography to be loaded, such as ZIP code, county, block group, census tract, or CBSA. Next, click the **+ sign** to expand the list and continue until you locate the geography you want. If selecting from the geography tree, you may select a single geography selection by clicking the box next to it. (A check mark will appear.) You may select multiple geographies by checking the box next to each one. If you select multiple geographies, they will be combined in the analysis.

Note: If you are interested in a county, do not select all its block groups. The AOD system calculates the smallest geography first and adds each individual selection to it. If you select all its block groups, calculation may take hours.

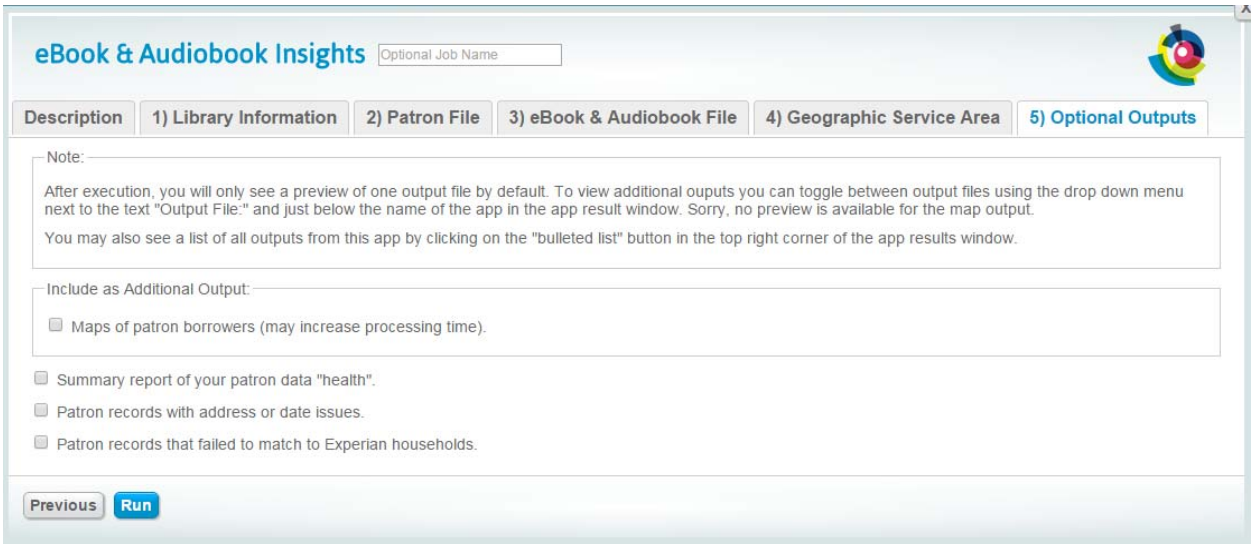
After you select a geography, scroll down the screen to the final filter on this tab: whether to include or exclude patrons outside the geography selected.

Finally, the **location filter** looks at whether patrons live inside or outside the library service area. The default includes all patrons, regardless of where they live. Clicking **Analyze only those patrons that fall WITHIN your service area (defined above)** includes patrons only if their addresses lie within the service area geography you defined earlier. Clicking **Analyze only those patrons that fall OUTSIDE OF your service area (defined above)** includes patrons only if their addresses lie outside the service area geography you defined earlier.



5.1.7 eBook & AudioBook Insights – Optional Outputs

The final step in the process before running the report is to decide whether you want to include maps or other reports/files in the output.



There are four optional outputs available.

a) **Maps of patron borrowers -** These maps include visuals of the home locations, arranged by material type and genre, of patrons who have checked out materials. The maps add a useful visual enhancement to the analysis of the charts and tables of the base report. With the maps, you can see at a glance which portion of your trade area tends to check out various genres and formats most often. **Note:** Selecting the additional maps adds processing time to your report and increases the size of final report.

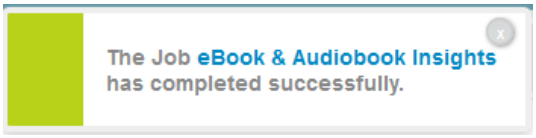
b) **Summary of your patron data "health"** – this will create a report outlining the number of records found in your patron file with the number of good/bad records found as well as the number of records found on Experian. It will also tell you the reasons for any bad data that was found.
c) **Patron records with address or date issues** – this will create a downloadable file of all patron address records that were bad and the reason why they could not be processed.
d) **Patron records that failed to match to Experian households** – this will create a downloadable file of the patron addresses that could not be found on the Experian household file.

Note: There are several reasons for Experian not having a match for a specific household. Among other things a consumer needs to be active at an address for some amount of time before Experian can profile them. The household might could be vacant or for sale. Excluding the Suite number in areas of high rise and multiple dwelling units lowers your match rate. And finally, the Experian data is updated quarterly so it may take time to work itself through the system.

Simply click the box to include the options you want or leave it blank if you elect not to.

Selecting maps is the final step in this process. Click

at the lower left side of the screen to begin the analysis. When the analysis completes, the following message will appear on screen if you are still logged on:



Please note that it is not necessary to wait until the analysis completes. By clicking

on the upper right side of the screen, you can return to the original app screen and the analysis will run in the background.

You can also log out or execute another AOD app analysis. If you want to make minor modifications and re-run the analysis with a different filter, select the

button at the lower left side of the screen. All your information is saved and you can modify any earlier choices to re-run the analyis.

6.0 MARKETING ACTION (PATRONS)

6.0 MARKETING ACTION (PATRONS)

This section provides a detailed description of the *Marketing Action (Patrons)* app. This applications allows you to analyze existing library patrons residing in your library's service area that fit a particular demographic profile. This app is designed to work with the same input file used for Patron Profiles, although it will optionally use an email address field if your library captures that information on a patron record.

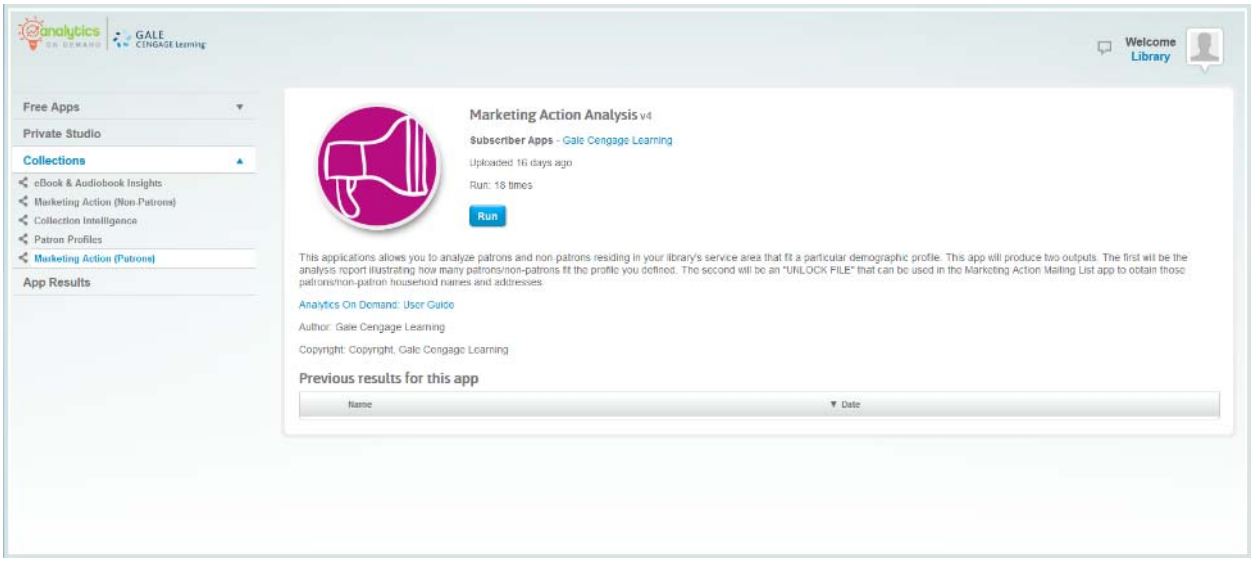
There are two separate apps included when you subscribe to this app, the *Marketing Action Analysis* app and the *Marketing Action Mailing List (Patrons)*. The Marketing Action Analysis app identifies a subset of your existing patrons that would be targeted for specialized programs, new content, or even fund raising, to name a few uses. This app allows multiple runs in order to narrow down the exact type of patron groups you want to reach. When the analysis is completed, the *Marketing Action Mailing List (Patrons)* app will generate the actual list of households.

6.1 Marketing Action Analysis (Patrons)

This section provides a detailed description of the *Marketing Action Analysis (Patrons)* app. This app will produce two outputs. The first will be the analysis report illustrating how many patrons fit the profile you defined. The second will be an "UNLOCK FILE" in .csv format that can be used in the *Marketing Action Mailing List* app to obtain those patron household names and addresses.

6.1.1 Marketing Action Analysis – Initial Screen

The following screen appears when you click the *Marketing Action Analysis* app:



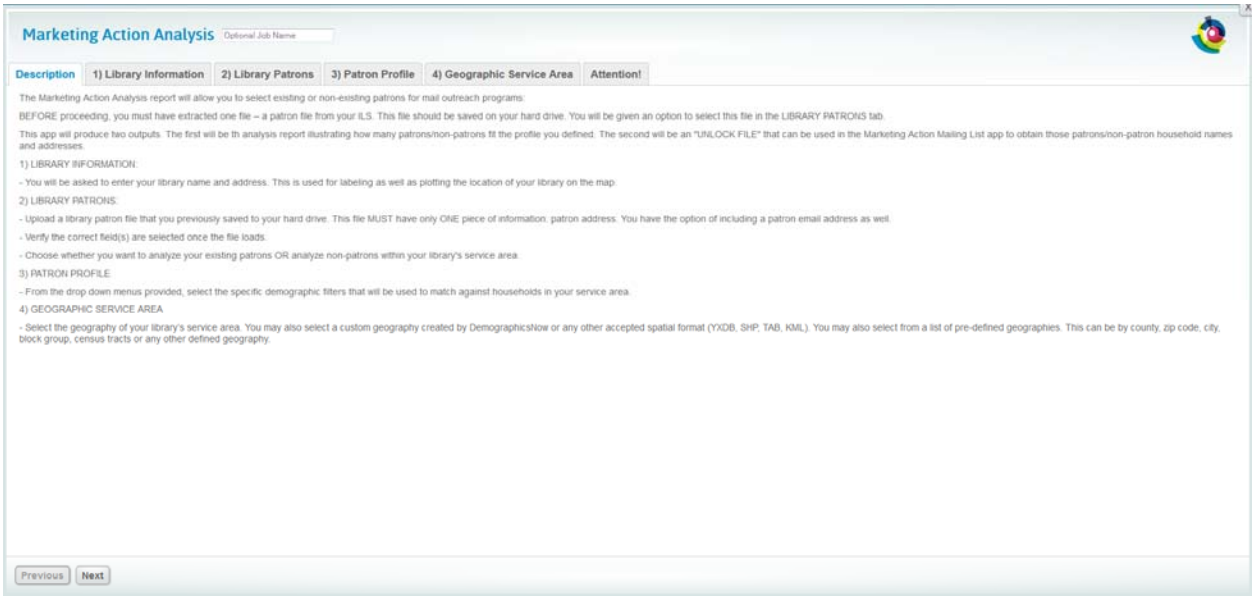
This screen provides the following key information:

> **Version number** – When the app is modified, the version number increments by one. Modifications may include enhancements, changes that accommodate input data files, and/or error corrections that are uncovered with repeated user access.

- **A summary description of what the Marketing Action Analysis app does:** "This applications allows you to analyze patrons residing in your library's service area that fit a particular demographic profile. This app will produce two outputs. The first will be the analysis report illustrating how many patrons fit the profile you defined. The second will be an "UNLOCK FILE" that can be used in the Marketing Action Mailing List app to obtain those patrons household names and addresses."
- **Link to Analytics On Demand User Guide** – clicking on this link takes you directly to the AOD user guide.
- **Listing of previous reports** – As discussed in Section 2.2.2, this list includes previous results (that you did not delete) which are currently stored on the Amazon cloud server.

6.1.2 Marketing Action Analysis – Description

When you click Run, the following screen appears. Note that the screen displays seven tabs. (Some apps may have more or fewer tabs.) The **Description** tab explains what is required to run the app, including a high-level overview of the commands.



This tab allows you to name an output report in the text box located in the upper left portion of the screen:

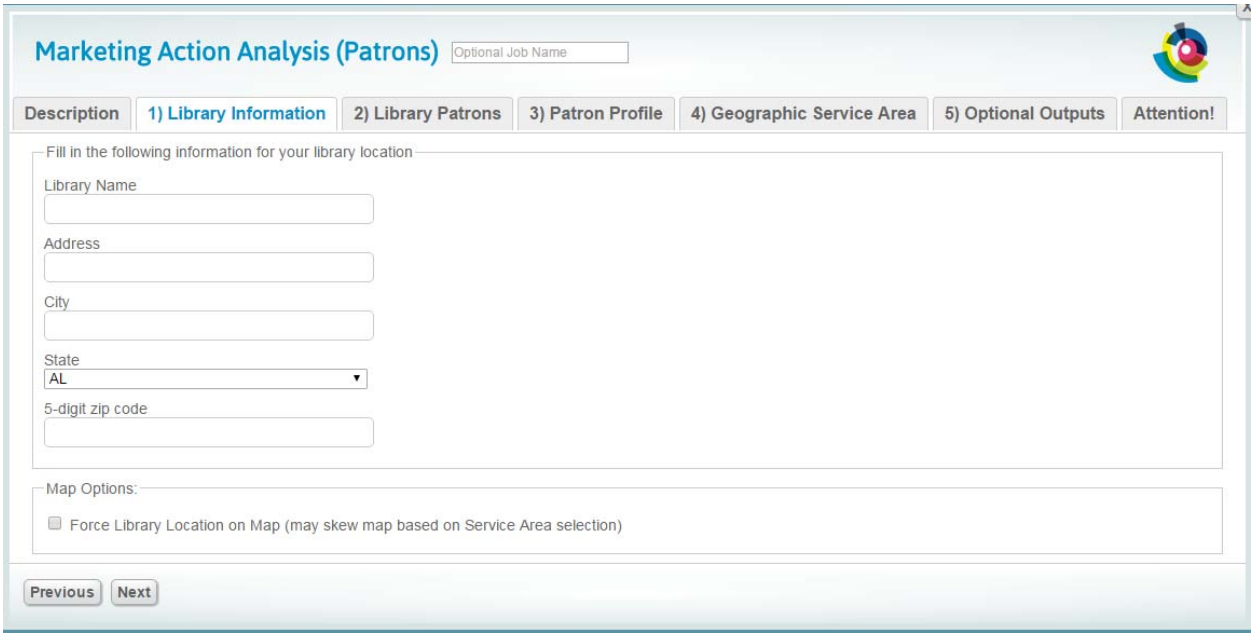
By using unique names, you can easily identify previous runs if you have not deleted them. You can name a report by the options selected or by the date on which it was run.

To proceed to the next tab, click the Next button on the lower left side of the screen or the tab at the top of the screen.

6.1.3 Marketing Action Analysis – Library Information

The **Library Information** tab provides boxes where you can input the name of your library and its address. This information is used for three purposes:

- To label the report generated
- To identify the spatial GIS point of the library's location in order to map this on map views in the report
- To calculate the drive time for each library patron from their home to the library
- To choose whether or not to display the library location on any maps views when it is outside of the selected Service Area



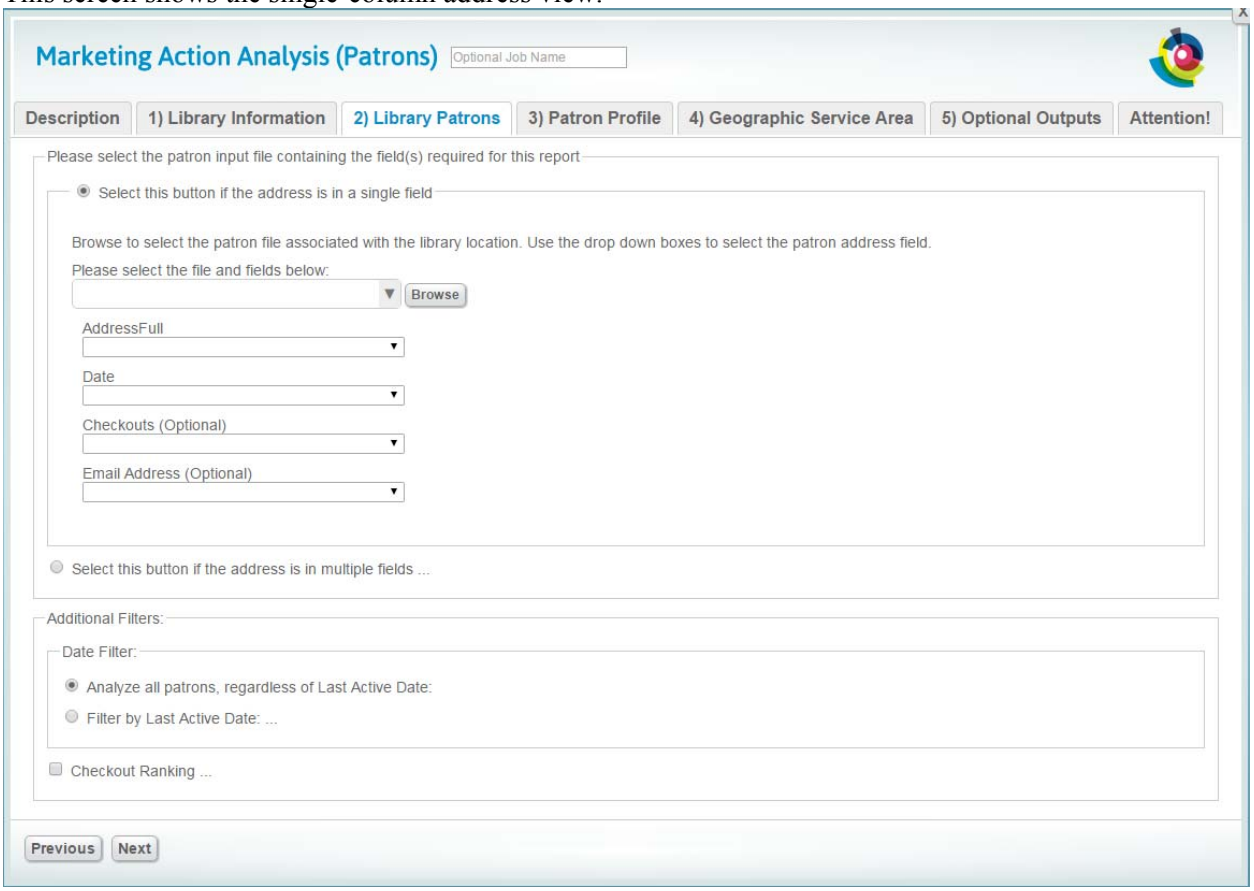
Click Next at the lower left side of the screen to proceed to the next tab.

6.1.4 Marketing Action Analysis – Library Patrons

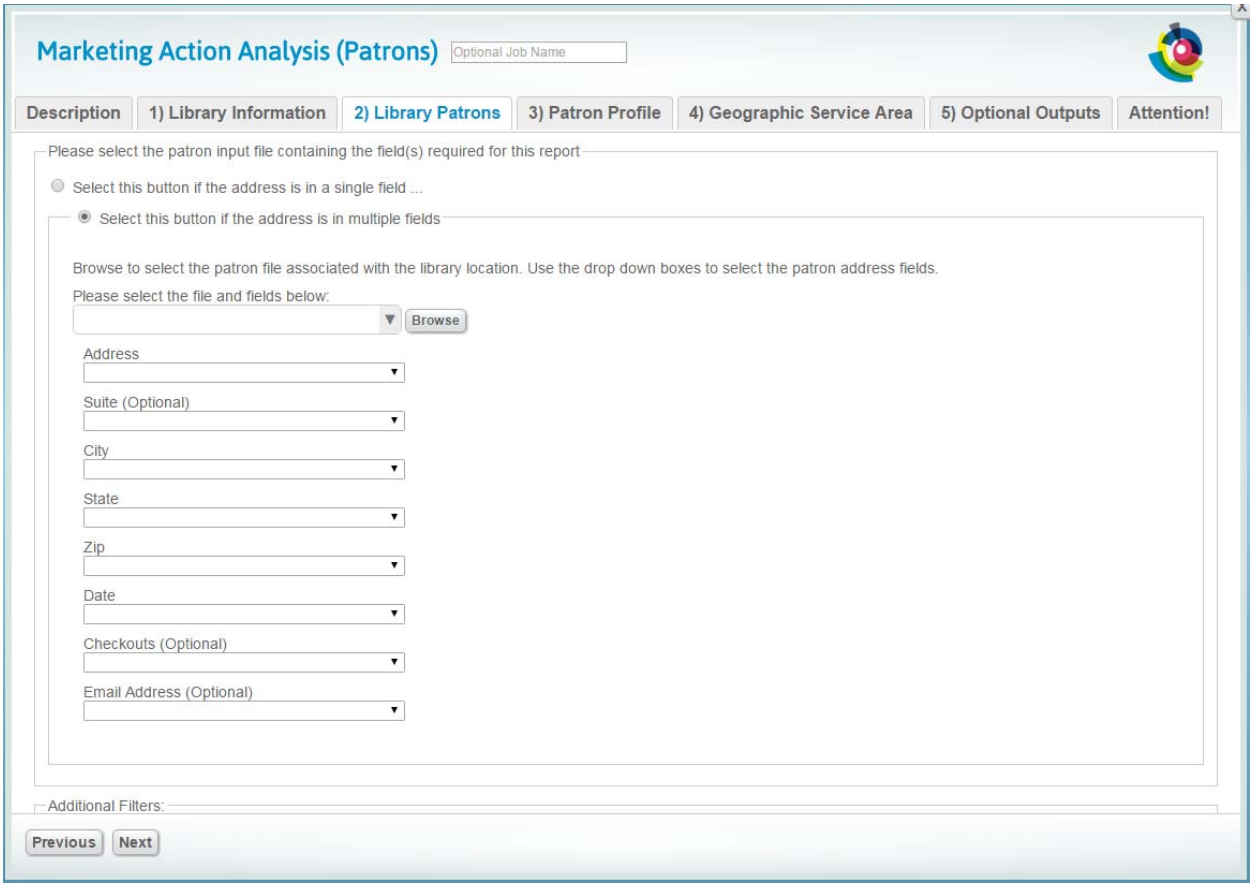
The next tab, Library **Patrons**, is where you upload the patron data file—normally an Excel— from your ILS. This file requires three specific pieces of information: a patron address, the last active date for this patron, and an optional email address (if your library captures that information in the patron record).

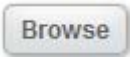
The following screenshots show data for an input file that includes a patron address. Depending on your ILS, a patron address may be extracted and placed in multiple columns—one or two for street address, one for city, one for state, and one for ZIP code. The view presented depends on the radio button you choose. The single-column address view is the default.

This screen shows the single-column address view.



The following screen shows the multiple-column address view.



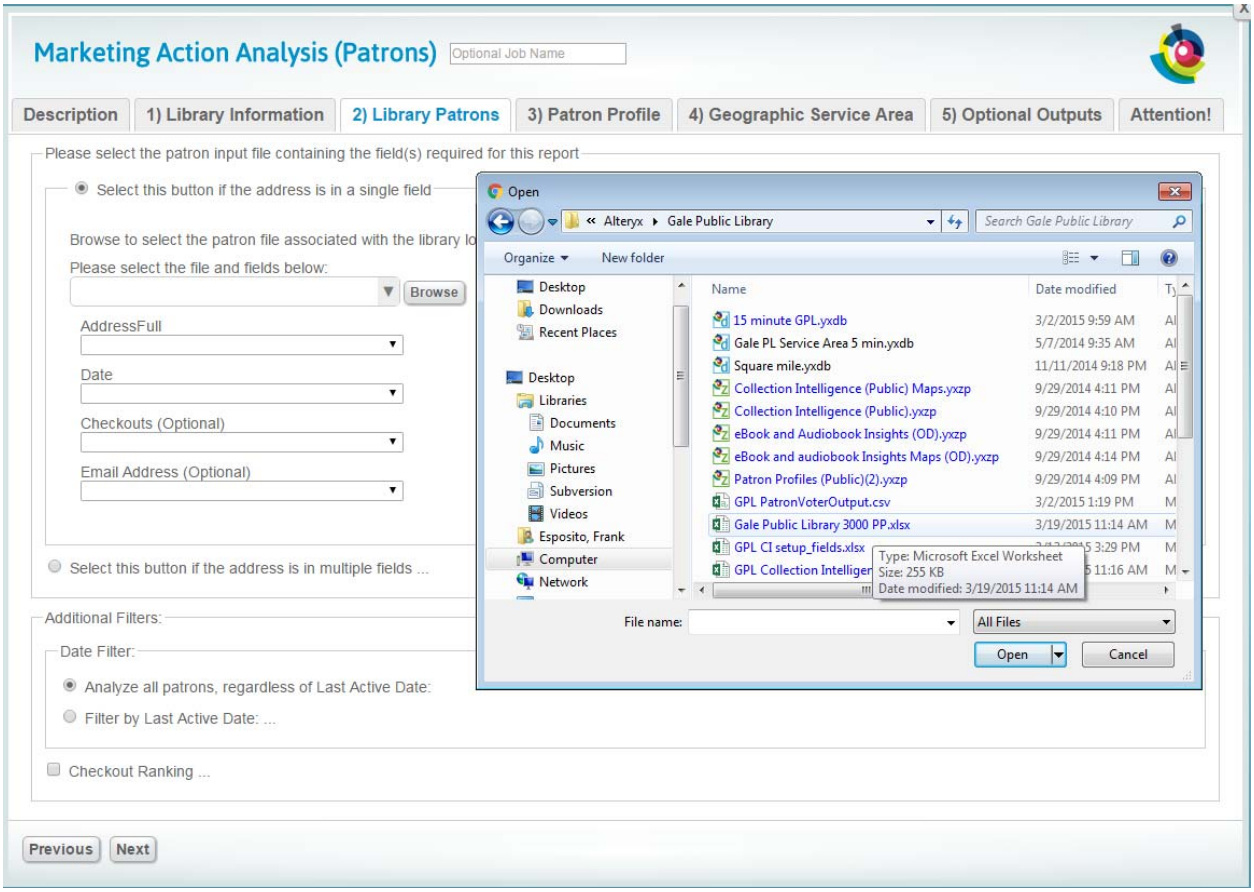
Once you select the address radio button for your input file, the next step is to click the 

button to browse input files located on your hard drive and/or network drive for uploading. This process is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You must have already extracted your input file from your ILS before accessing the app.

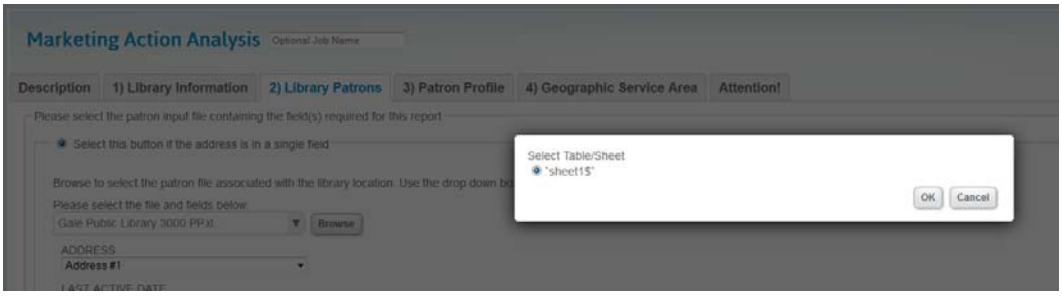
It is also critical that the format of the input file is identical to the sample file previously submitted to Gale during the validation phase of ordering. Changing the format may prevent the app from running properly. If any problems occur during running the app, contact Gale Customer Care.

As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.



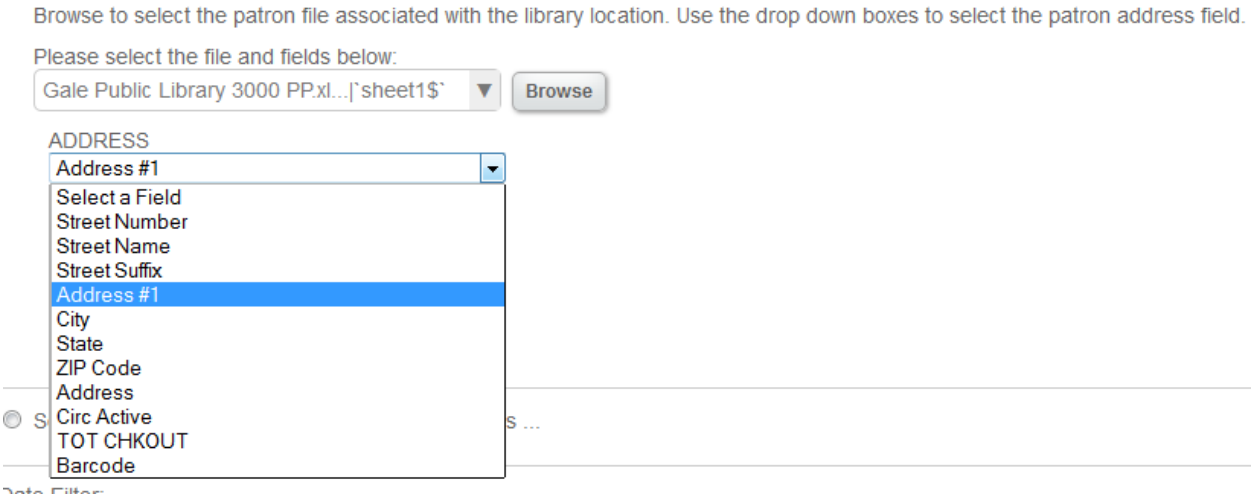
After you select the file, AOD asks you to confirm that the spreadsheet it selected from the input file is correct by clicking OK.

Note: Excel workbooks can contain multiple spreadsheets, which is why it is important to confirm the selection.

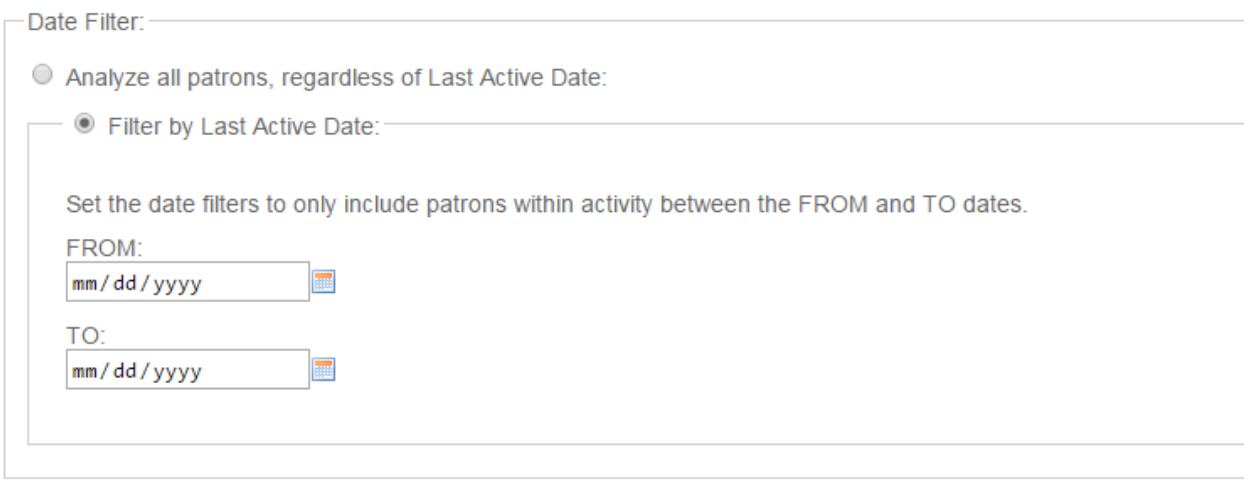


After you have confirmed the selection, AOD loads the file into the app and attempts to match the columnar fields in the input file to the names on each of the fields identified in this tab (address, activity date and email address). If the heading in the input file is similar to the descriptive name on the screen AOD auto-selects that column. Verify that the app has selected the correct columns of data.

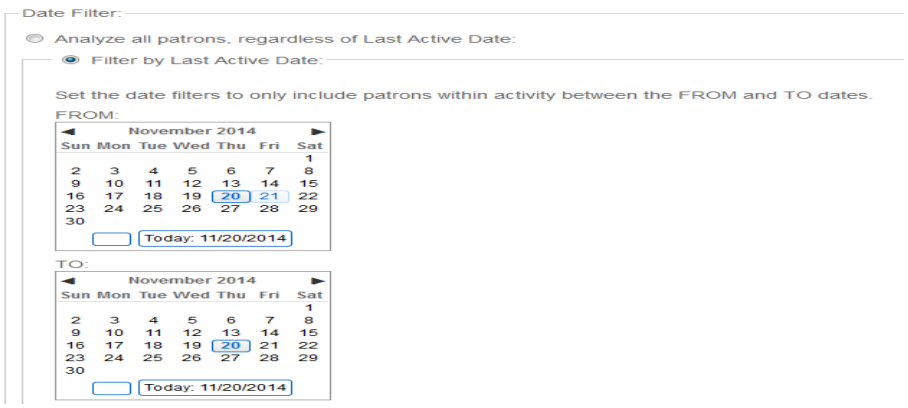
On fields that AOD has not auto-selected, click the drop-down list of the remaining fields and match the correct field in the input file to the required field.



After aligning the fields to your input data file, you have the option to filter your patrons by their last active date. The default, as shown below, is all patrons, regardless of Last Active Date.



If you elect to only include groups of patrons by their activity date, click on the FILTER BY LAST ACTIVE DATE and the following window appears:



You can now select a beginning and ending date window of activity and the app will exclude any patron that has a last active date that falls outside of this window.

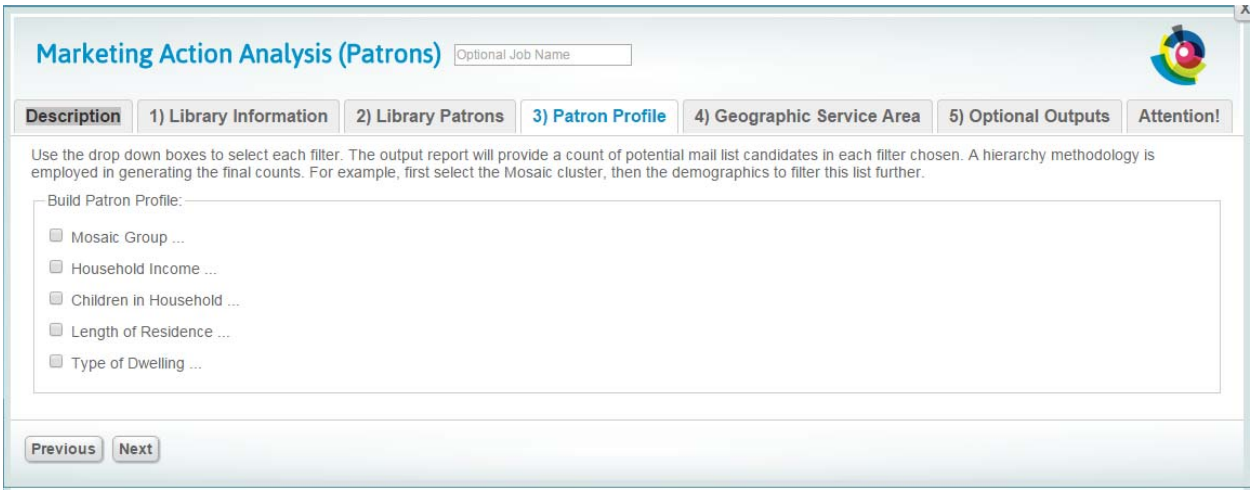
You may also filter by the number of checkouts by selecting the Checkout Ranking option.

This option will allow you to specify the top or bottom percentage of your patrons to include in the analysis. To determine the top/bottom percent all checkouts are summarized at the household level. Then the top or bottom percentage you specified are included in the analysis. The remaining patron records are not included.

Click Next at the lower left side of the screen to proceed to the next tab.

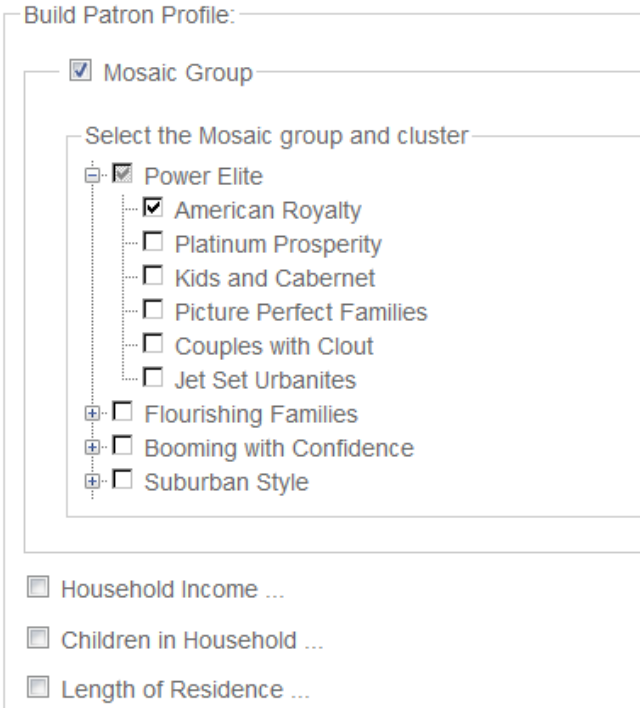
6.1.5 Marketing Action Analysis – Patron Profile

Your next step is to select specific filters to narrow down the exact demographic profile of the patrons you want to reach.



You will build your patron profile by selecting the demographic attributes. If you do not want to select a 'slice' or 'portion' of a demographic variable, simply do not click on the radio button next to it. All of that particular attribute will be included. On demographic attributes you do want to filter, click on the box next to the attribute to select each filter.

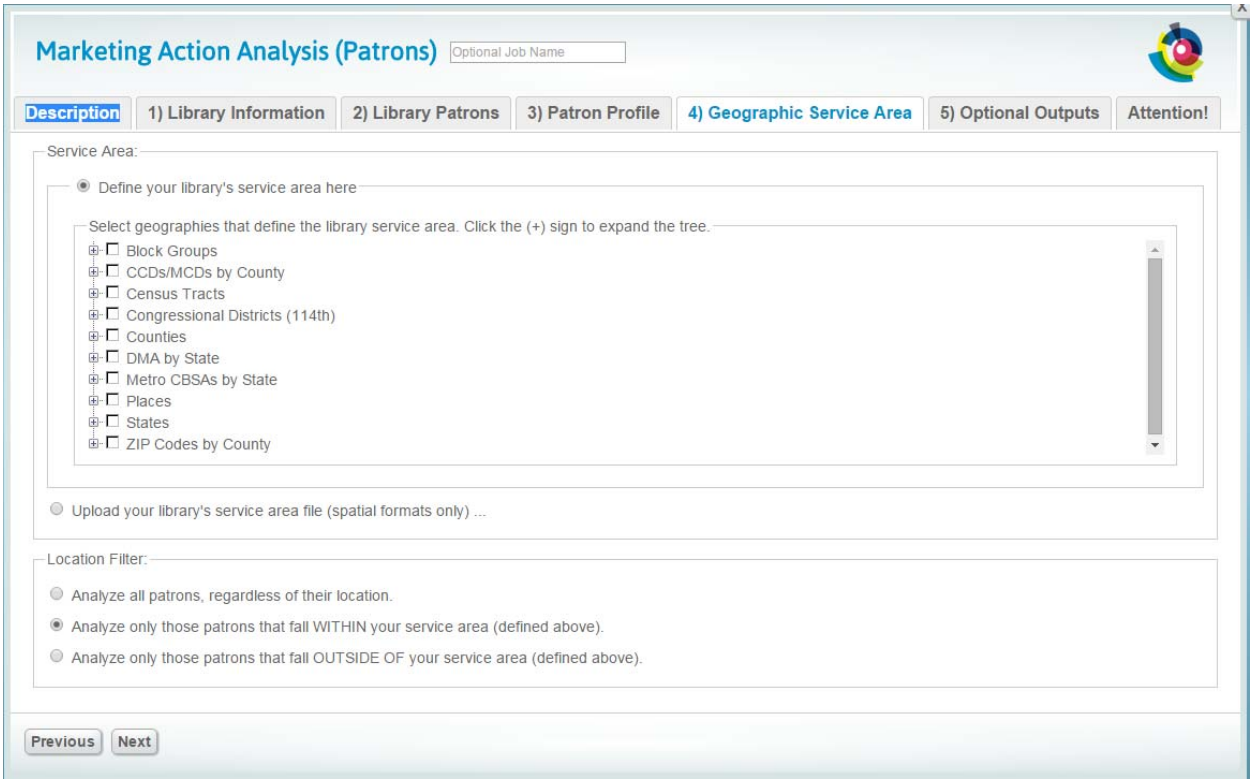
The output report will provide a count of potential mail list candidates in each filter chosen. A hierarchy methodology is employed in generating the final counts. For example, first select the Mosaic cluster, then the demographics to filter this list further. The following image demonstrates the selection of only one Mosaic cluster (American Royalty) which will NOT filter on household income, children in household or length of residence. In other words, the report will not exclude anyone based on their income, whether they have or not have children in the household, how long they have lived in their home or the type of dwelling they live in.

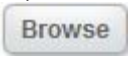


Click at the lower left side of the screen to proceed to the next tab.

6.1.6 Marketing Action Analysis – Geographic Service Area

Your next step is to identify the geographic area you want to analyze. Examples of geographies include a) the library's service area, b) surrounding geographies outside the service area (to analyze patrons who use the library but don't reside in the service area, c) smaller geographies, such as census tracts and block groups (to analyze specific neighborhoods).

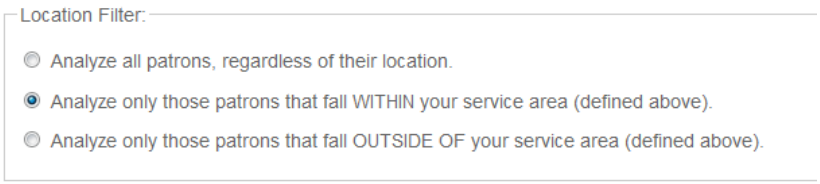


You can select geographies from the geography tree menu or upload a custom geography (GIS) spatial file. Spatial files from either MapInfo or ESRI must be packaged within a zipped folder before uploading. This app also accepts Alteryx (YXDB) and Google Earth (KML) format spatial files. If you are loading a spatial file, click the OR Upload your library's service area file (spatial formats only) button and then click on  button and locate the **spatial file** in the directory you previously saved it and select it. When the file appears in the file window, move to the next filtering question, which appears after the geography tree.

If selecting a geography from the geography tree, first locate the type of geography to be loaded, such as ZIP code, county, block group, census tract, or CBSA. Next, click the **+ sign** to expand the list and continue until you locate the geography you want. If selecting from the geography tree, you may select a single geography selection by clicking the box next to it. (A check mark will appear.) You may select multiple geographies by checking the box next to each one. If you select multiple geographies, they will be combined in the analysis.

Note: If you are interested in a county, do not select all its block groups. The AOD system calculates the smallest geography first and adds each individual selection to it. If you select all its block groups, calculation may take hours.

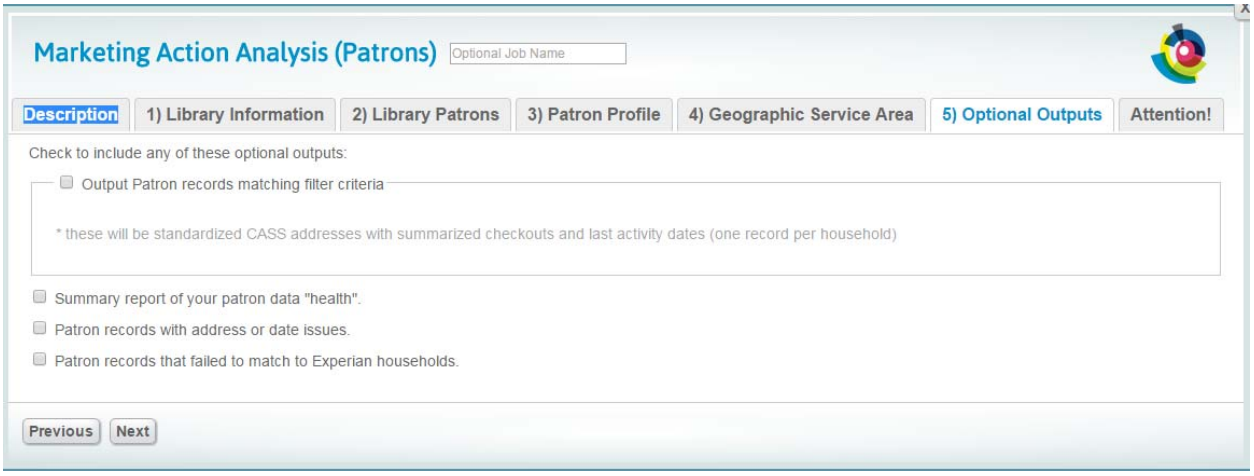
The final decision you will need to make is a decision as to whether to include all of your patrons, only those patrons that reside within the geographic area you have chosen, or only those patrons that reside outside the geographic area you have chosen. The default is to only select the patrons in the geography chosen, so change this selection if you elect to include everyone, regardless of where they live.



Click at the lower left side of the screen to proceed to the next tab.

6.1.7 Marketing Action Analysis – Optional Outputs

The next step in the process before running the report is to decide whether you want to include additional files or reports in the output.



There are four optional outputs available.

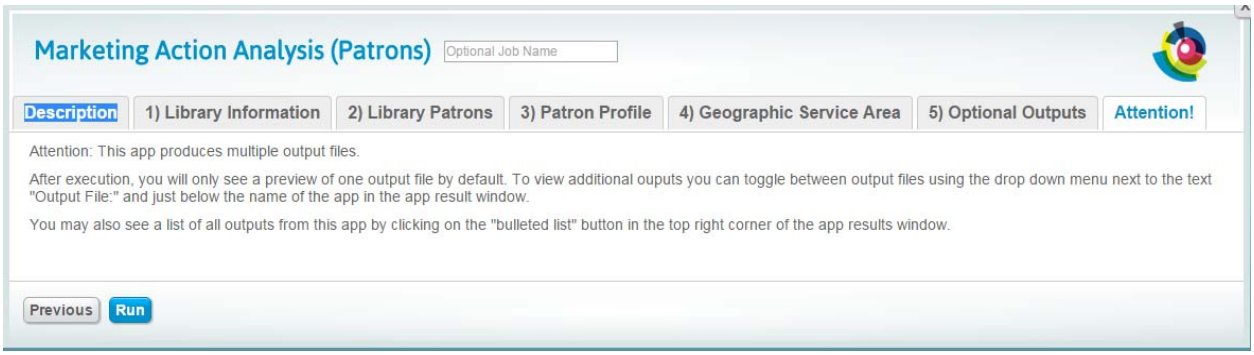
a) **Output Patron records matching filter criteria –** This will create a downloadable file of patrons who have matched your selections on the Patron Profile tab. These addresses will be standardized to the CASS household address and the last activity date and checkout counts for each will be summarized to include all patrons in that household.
b) **Summary of your patron data "health"** – this will create a report outlining the number of records found in your patron file with the number of good/bad records found as well as the number of records found on Experian. It will also tell you the reasons for any bad data that was found.
c) **Patron records with address or date issues** – this will create a downloadable file of all patron address records that were bad and the reason why they could not be processed.
d) **Patron records that failed to match to Experian households** – this will create a downloadable file of the patron addresses that could not be found on the Experian household file.

Note: There are several reasons for Experian not having a match for a specific household. Among other things a consumer needs to be active at an address for some amount of time before Experian can profile them. The household might could be vacant or for sale. Excluding the Suite number in areas of high rise and multiple dwelling units lowers your match rate. And finally, the Experian data is updated quarterly so it may take time to work itself through the system.

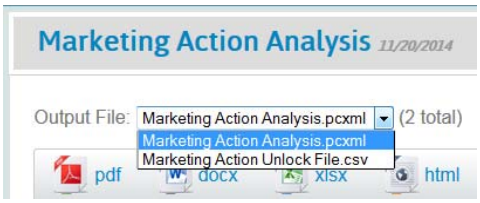
Simply click the box to include the options you want or leave it blank if you elect not to.

6.1.8 Marketing Action Analysis – Attention!

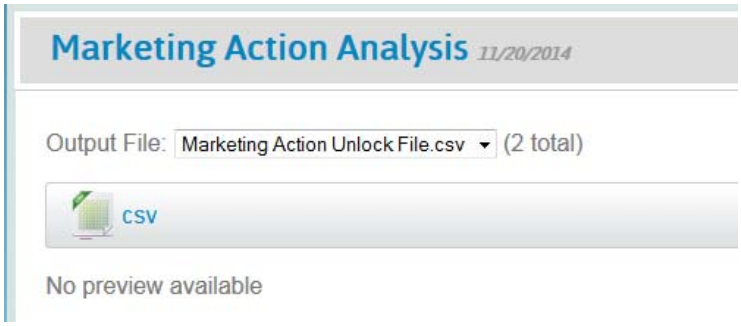
The final step in the process before running the simply requires you to be familiar with the type of outputs this particular app generates. There are no filters, uploads, or decisions that need to be made in this tab.



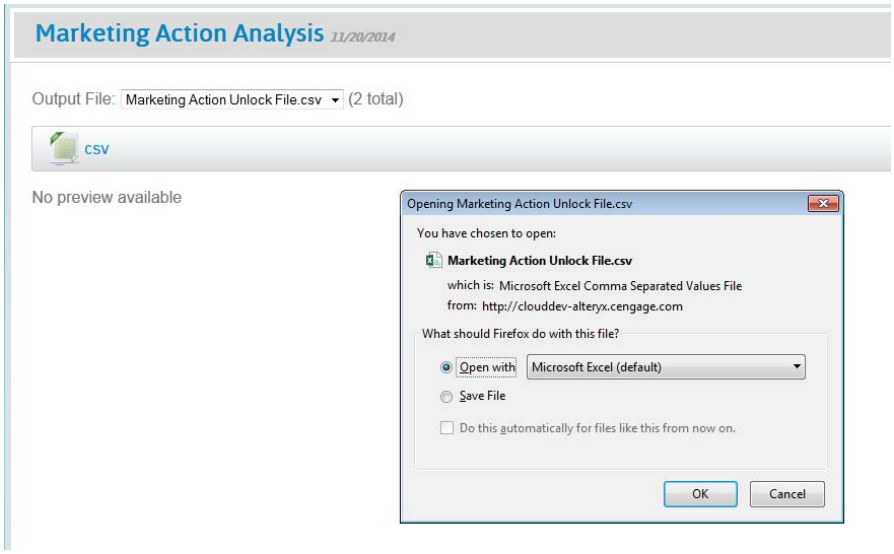
Specifically, this tab explains that you will receive two outputs. One will be the brief report that includes a table to identify the households that fell in to each one of the filters (along with a map) and the second will be the .csv file you will need to upload in to the Marketing Action Mailing List (Patrons) app to generate the actual list. As shown below, you can switch from one output to the other by clicking on the drop down arrow at the top of the page to select between the two.



If you are satisfied with the count of households from the analysis, select the Marketing Action Unlock File.csv option and the screen will switch to that output, as shown below.



Simply click on the csv icon and a box will appear to allow you to open it or save it to your hard drive.



You can then find and select this file when running the Marketing Action Mailing List (Patrons) app.

To run this app, click Run at the lower left side of the screen to begin the analysis. When the analysis completes, the following message will appear on screen if you are still logged on:

Please note that it is not necessary to wait until the analysis completes. By clicking on the upper right side of the screen, you can return to the original app screen and the analysis will run in the background.

You can also log out or execute another AOD app analysis. If you want to make minor modifications and re-run the analysis with a different filter, select the Re-Run button at the lower left side of the screen. All your information is saved and you can modify any earlier choices.

6.2 Marketing Action Mailing List (Patrons)

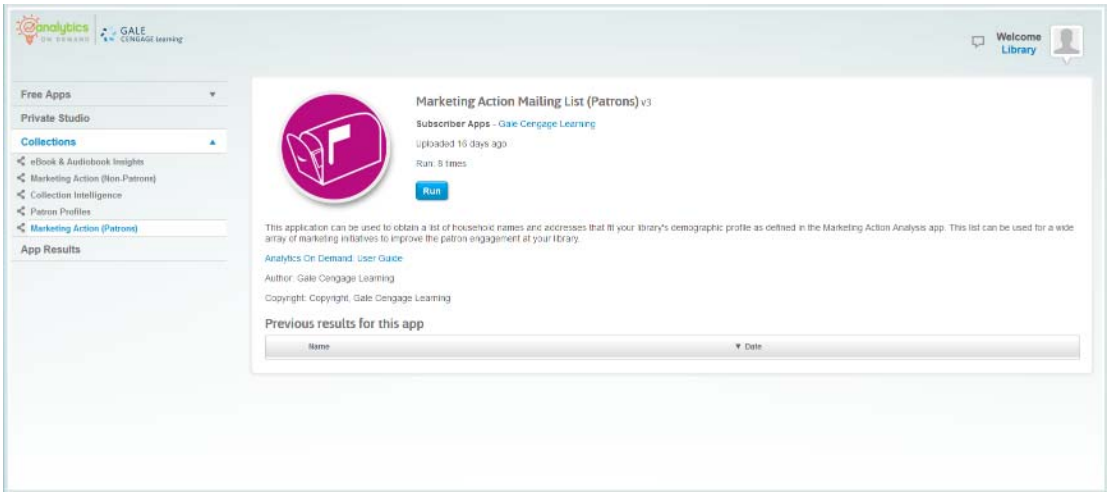
This section provides a detailed description of the *Marketing Action Mailing List (Patrons)* app.

There are two separate apps included when you subscribe to the *Marketing Action (Patrons)* app, the *Marketing Action Analysis* app and the *Marketing Action Mailing List (Patrons) app*. The *Marketing Action Mailing List (Patrons)* app is used to output the actual list of households created by the *Marketing Action Analysis* app.

This app will produce one output – the household mailing list of existing patrons you are targeting.

6.2.1 Marketing Action Mailing List (Patrons) – Initial Screen

The following screen appears when you click the *Marketing Action Mailing List (Patrons)* app:

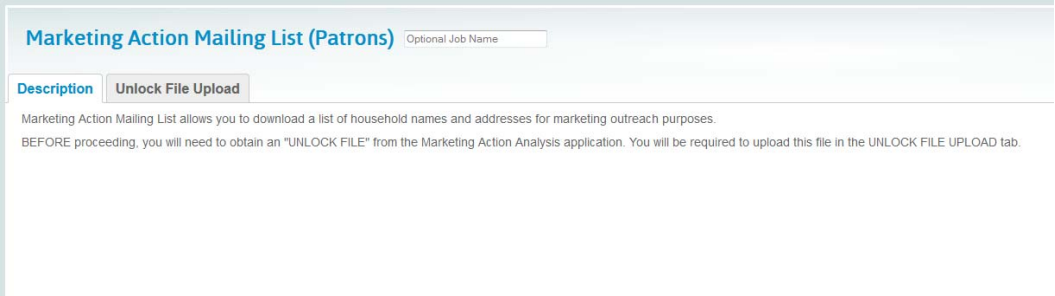


This screen provides the following key information:

- **Version number** – When the app is modified, the version number increments by one. Modifications may include enhancements, changes that accommodate input data files, and/or error corrections that are uncovered with repeated user access.
- **A summary description of what the Marketing Action Mailing List (Patrons) app does:** "This application can be used to obtain a list of household names and addresses that fit your library's demographic profile as defined in the Marketing Action Analysis app. This list can be used for a wide array of marketing initiatives to improve the patron engagement at your library."
- **Link to Analytics On Demand User Guide** – clicking on this link takes you directly to the AOD user guide.
- **Listing of previous reports** – As discussed in Section 2.2.2, this list includes previous results (that you did not delete) which are currently stored on the Amazon cloud server.

6.2.2 Marketing Action Mailing List (Patrons) – Description

When you click Run, the following screen appears. Note that the screen displays only two tabs. (Some apps may have more or fewer tabs.) The **Description** tab explains what is required to run the app, including a high-level overview of the commands.



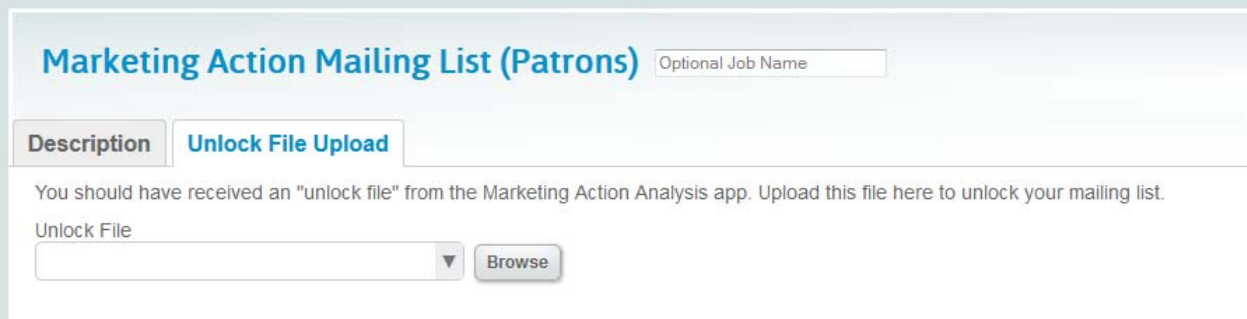
This tab allows you to name an output report in the text box located in the upper left portion of the screen:

By using unique names, you can easily identify previous runs if you have not deleted them. You can name a report by the options selected or by the date on which it was run.

To proceed to the next tab, click the Next button on the lower left side of the screen or the tab at the top of the screen.

6.2.3 Marketing Action Mailing List (Patrons) – Unlock File Upload

The **Unlock File Upload** tab is where you upload the .csv file you created in the Marketing Action Analysis (Patrons) app.

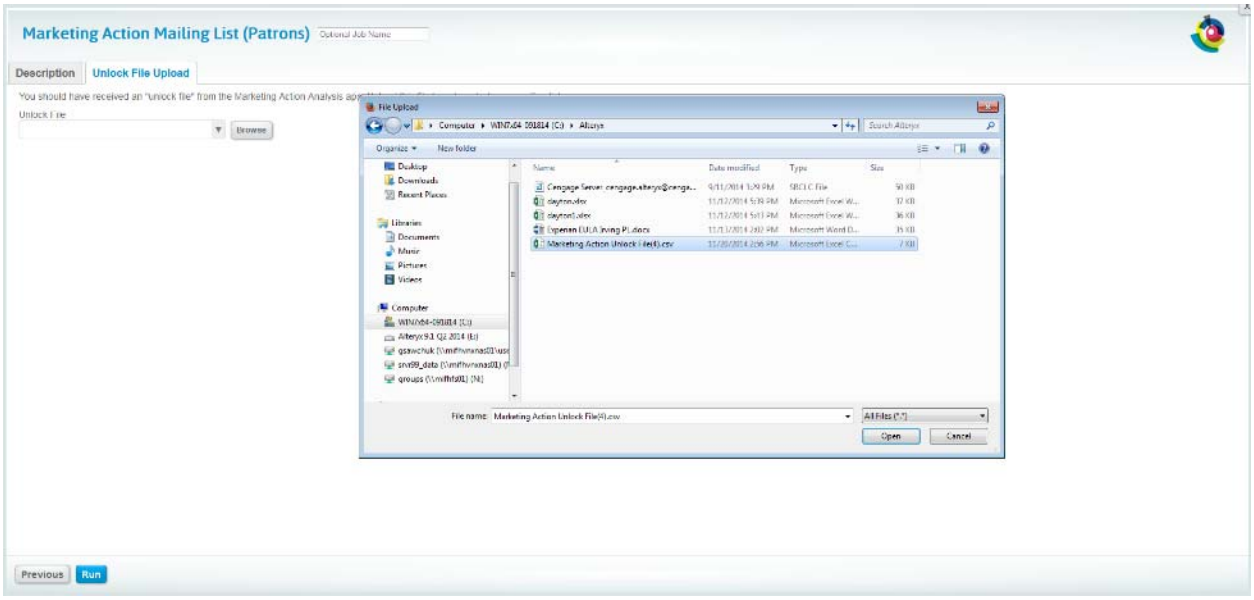


Click the Browse button to browse for the .csv input file located on your hard drive and/or network

drive for uploading. This process (of uploading) is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You must have already ran the Marketing Action Analysis (Patrons) app and saved the .csv input file before accessing this app.

As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.

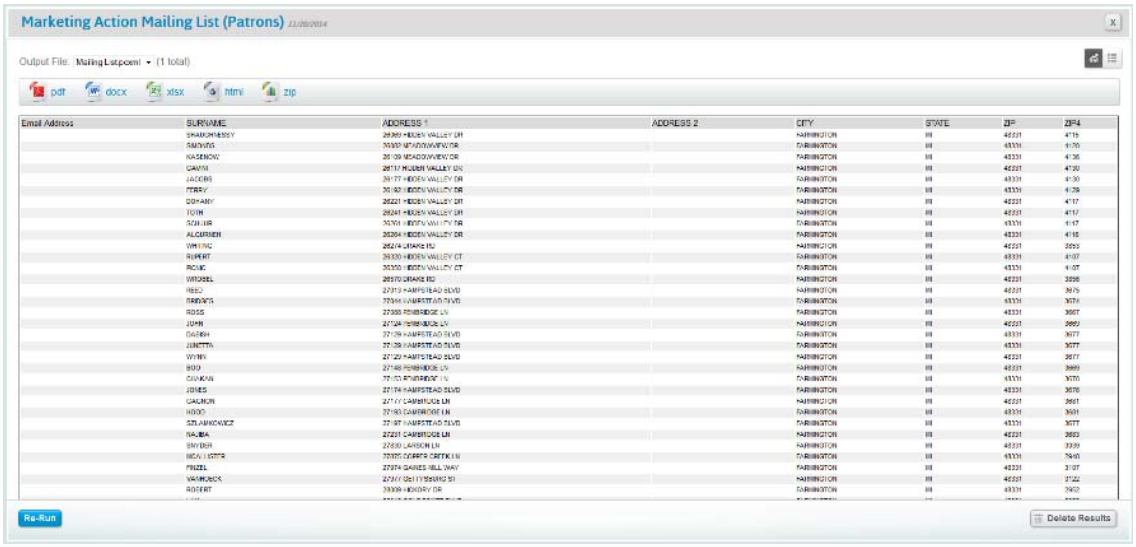


After you select the .csv file you may immediately run the app.

To run this app, click

at the lower left side of the screen to begin the creation of the mailing list. When the mailing list is complete, the following message will appear on screen if you are still logged on:

The mailing list will appear on screen. Select the output you want to save the mailing to by clicking on the file types above the list.


Marketing Action Mailing List (Patrons)
Output File: MailingListpoint (1 total)
pdf
docx
xlsx
html
zip
Email Address
SURNAME
ADDRESS 1
ADDRESS 2
CITY
STATE
ZIP
ZIP4
Re-Run
Delete Results

7.0 MARKETING ACTION (NON-PATRONS)

7.0 MARKETING ACTION (NON-PATRONS)

This section provides a detailed description of the *Marketing Action (Non-Patrons)* app. This applications allows you to analyze potential new library patrons residing in your library's service area that fit a particular demographic profile. This app is designed to work with the same input file used for Patron Profiles.

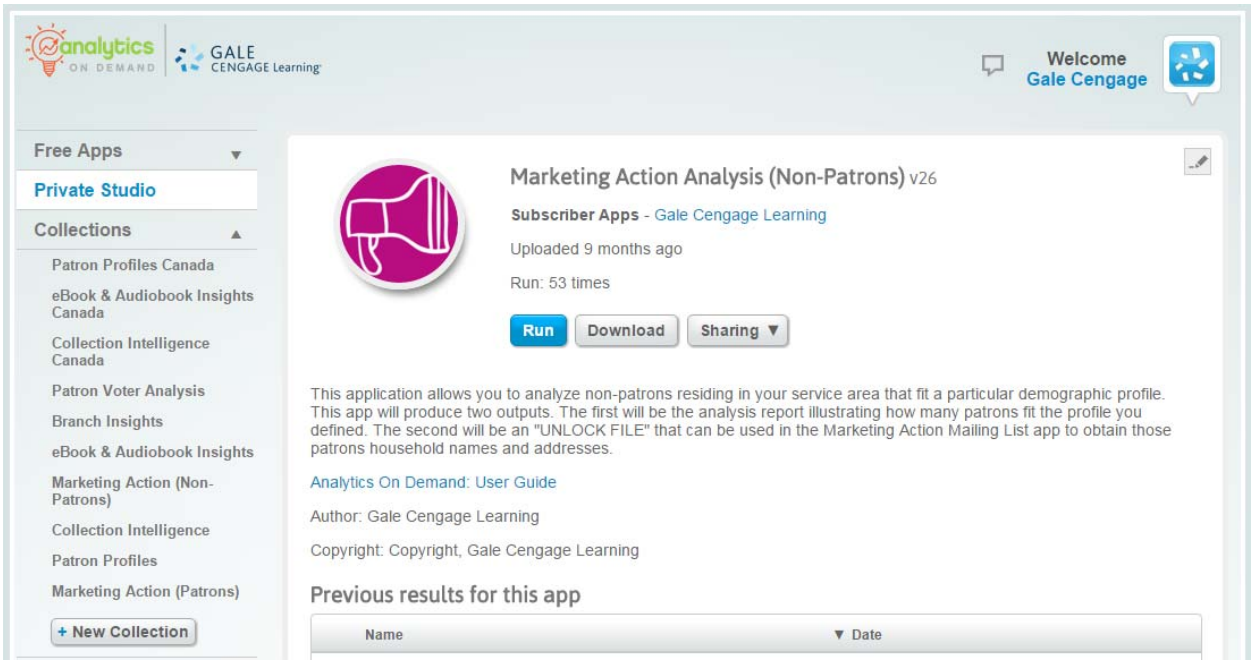
There are two separate apps included when you subscribe to this app, the *Marketing Action Analysis* app and the *Marketing Action Mailing List (Non-Patrons)*. The Marketing Action Analysis app identifies a subset of potential new patrons that would be targeted to sign up for a library card to use the library. This app allows multiple runs in order to narrow down the exact type of patron groups you want to reach. When the analysis is completed, the *Marketing Action Mailing List (Non-Patrons)* app will generate the actual list of households.

7.1 Marketing Action Analysis (Non-Patrons)

This section provides a detailed description of the *Marketing Action Analysis (Non-Patrons)* app. This app will produce two outputs. The first will be the analysis report illustrating how many non-patrons fit the profile you defined. The second will be an "UNLOCK FILE" in .csv format that can be used in the *Marketing Action Mailing List* app to obtain those non-patron household names and addresses.

7.1.1 Marketing Action Analysis – Initial Screen

The following screen appears when you click the *Marketing Action Analysis* app:



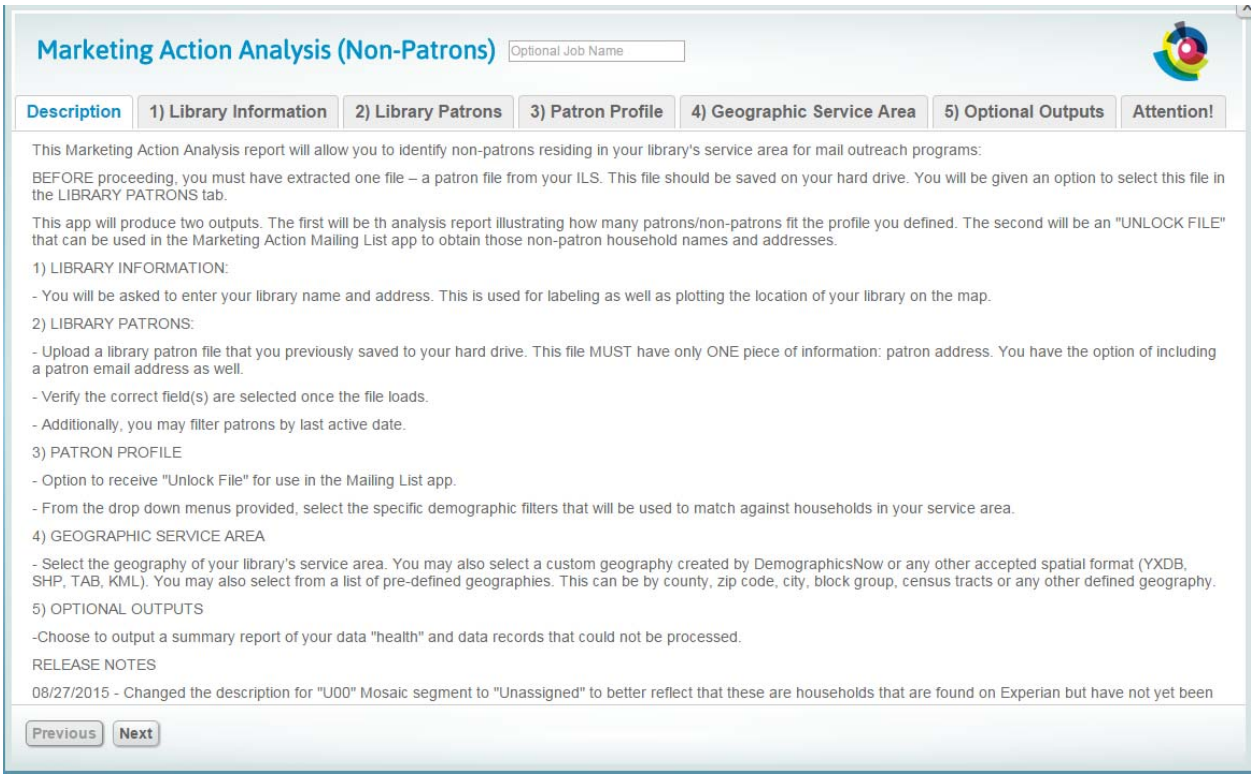
This screen provides the following key information:

Version number – When the app is modified, the version number increments by one. Modifications may include enhancements, changes that accommodate input data files, and/or error corrections that are uncovered with repeated user access.

- **A summary description of what the Marketing Action Analysis app does:** "This applications allows you to analyze non-patrons residing in your library's service area that fit a particular demographic profile. This app will produce two outputs. The first will be the analysis report illustrating how many non-patrons fit the profile you defined. The second will be an "UNLOCK FILE" that can be used in the Marketing Action Mailing List app to obtain those non-patron household names and addresses."
- **Link to Analytics On Demand User Guide** – clicking on this link takes you directly to the AOD user guide.
- **Listing of previous reports** – As discussed in Section 2.2.2, this list includes previous results (that you did not delete) which are currently stored on the Amazon cloud server.

7.1.2 Marketing Action Analysis – Description

When you click Run, the following screen appears. Note that the screen displays seven tabs. (Some apps may have more or fewer tabs.) The **Description** tab explains what is required to run the app, including a high-level overview of the commands.



This tab allows you to name an output report in the text box located in the upper left portion of the screen:

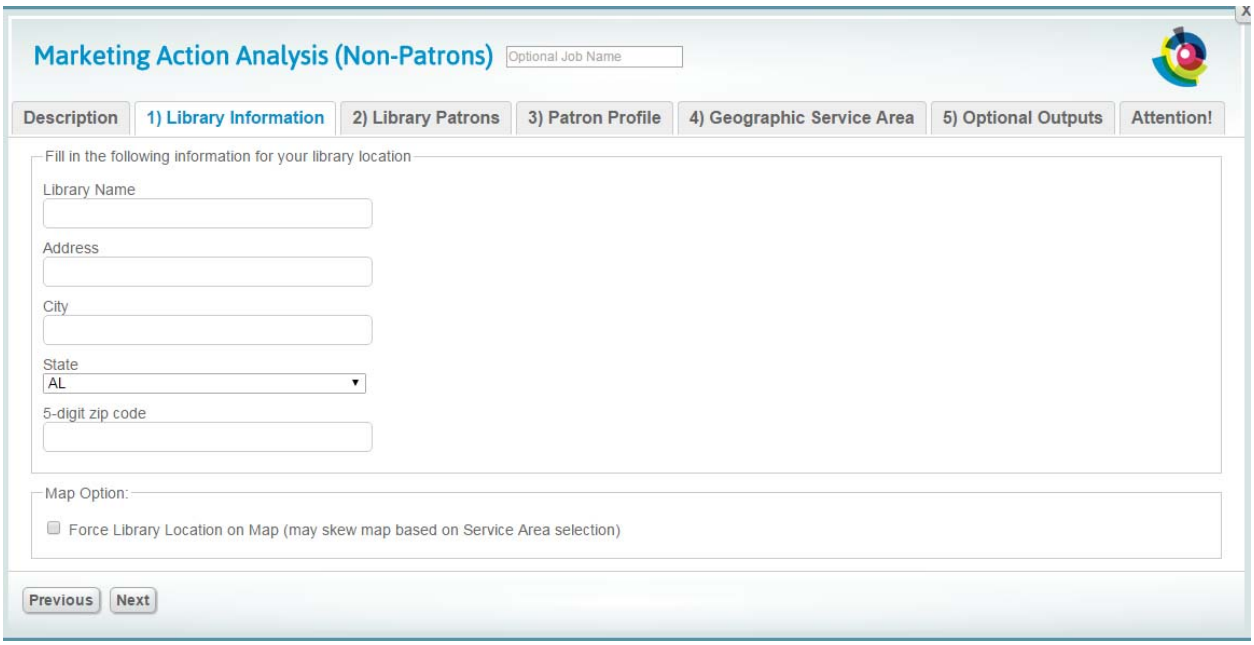
By using unique names, you can easily identify previous runs if you have not deleted them. You can name a report by the options selected or by the date on which it was run.

To proceed to the next tab, click the Next button on the lower left side of the screen or the tab at the top of the screen.

7.1.3 Marketing Action Analysis – Library Information

The **Library Information** tab provides boxes where you can input the name of your library and its address. This information is used for three purposes:

- To label the report generated
- To identify the spatial GIS point of the library's location in order to map this on map views in the report
- To calculate the drive time for each library patron from their home to the library
- To choose whether or not to display the library location on any maps views when it is outside of the selected Service Area



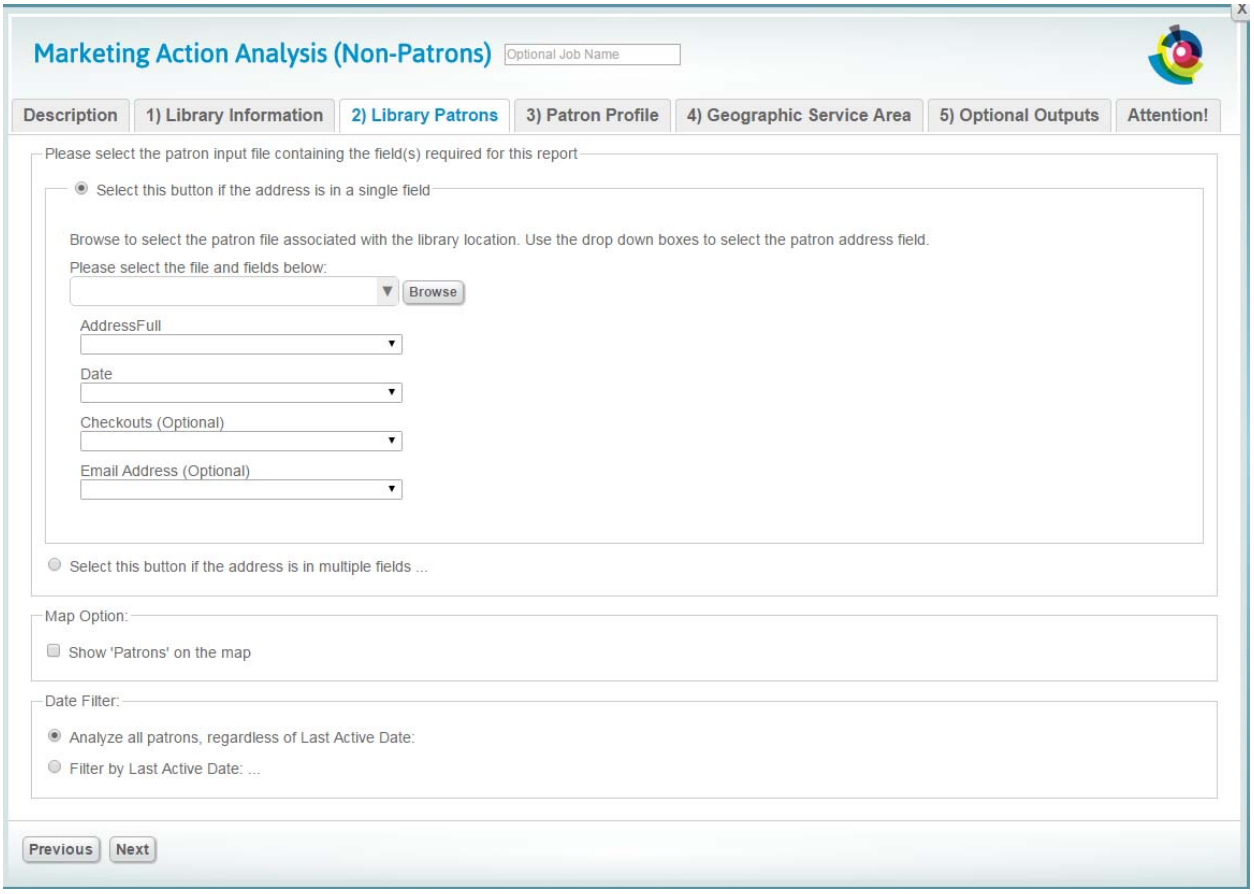
Click Next at the lower left side of the screen to proceed to the next tab.

7.1.4 Marketing Action Analysis – Library Patrons

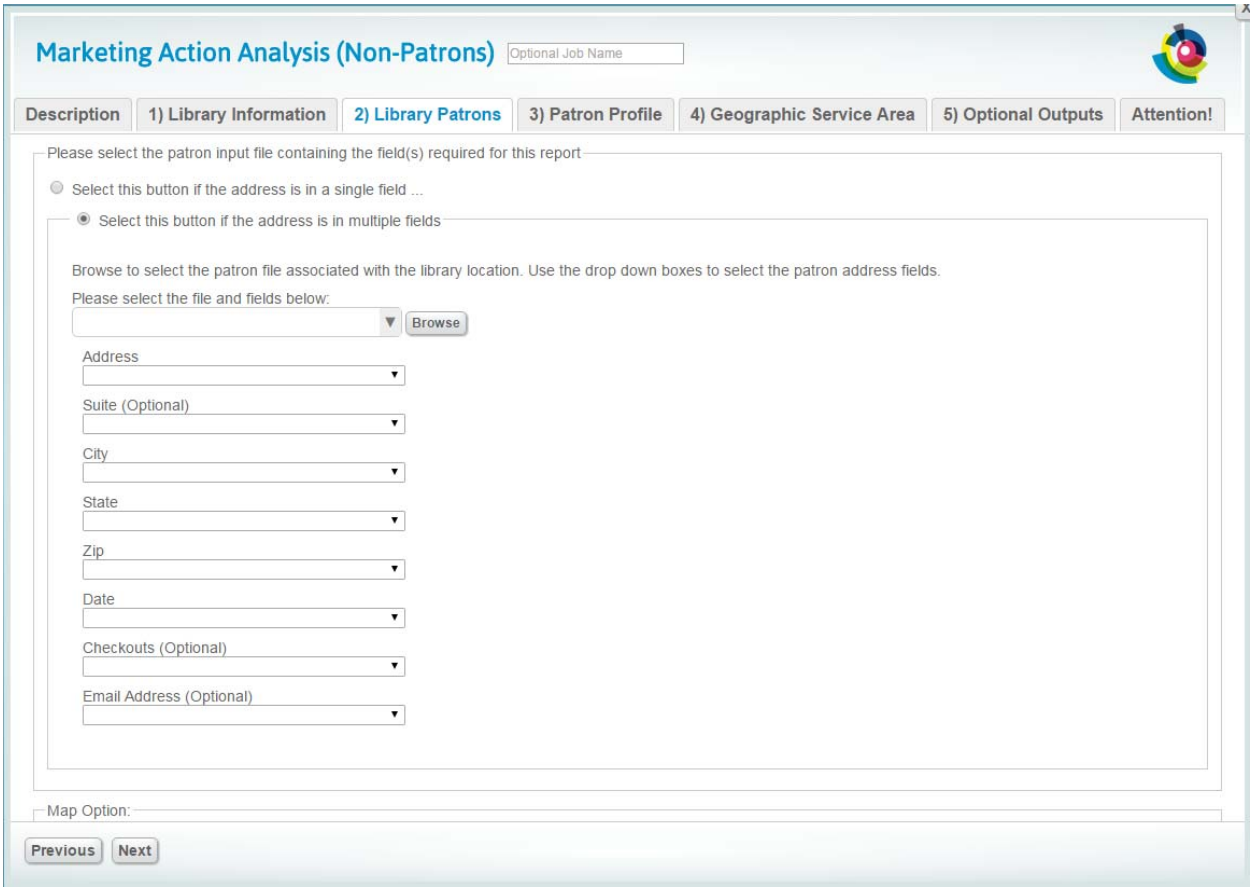
The next tab, Library **Patrons**, is where you upload the patron data file—normally an Excel— from your ILS. As the *Marketing Action Analysis* app is used for both the PATRONS and NON-PATRONS apps, it is asking for information that will not actually be used for NON-PATRONS. However, since it is using the same input file used for *Patron Profiles,* the information is in that file and needs to be aligned in this step. This file requires two specific pieces of information: a patron address, and the last active date. In effect, you can specify an activity date of several years back and the patrons that were not active in this time period would be included in the new patron mailing list.

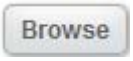
The following screenshots show data for an input file that includes a patron address. Depending on your ILS, a patron address may be extracted and placed in multiple columns—one or two for street address, one for city, one for state, and one for ZIP code. The view presented depends on the radio button you choose. The single-column address view is the default.

This screen shows the single-column address view.



The following screen shows the multiple-column address view.



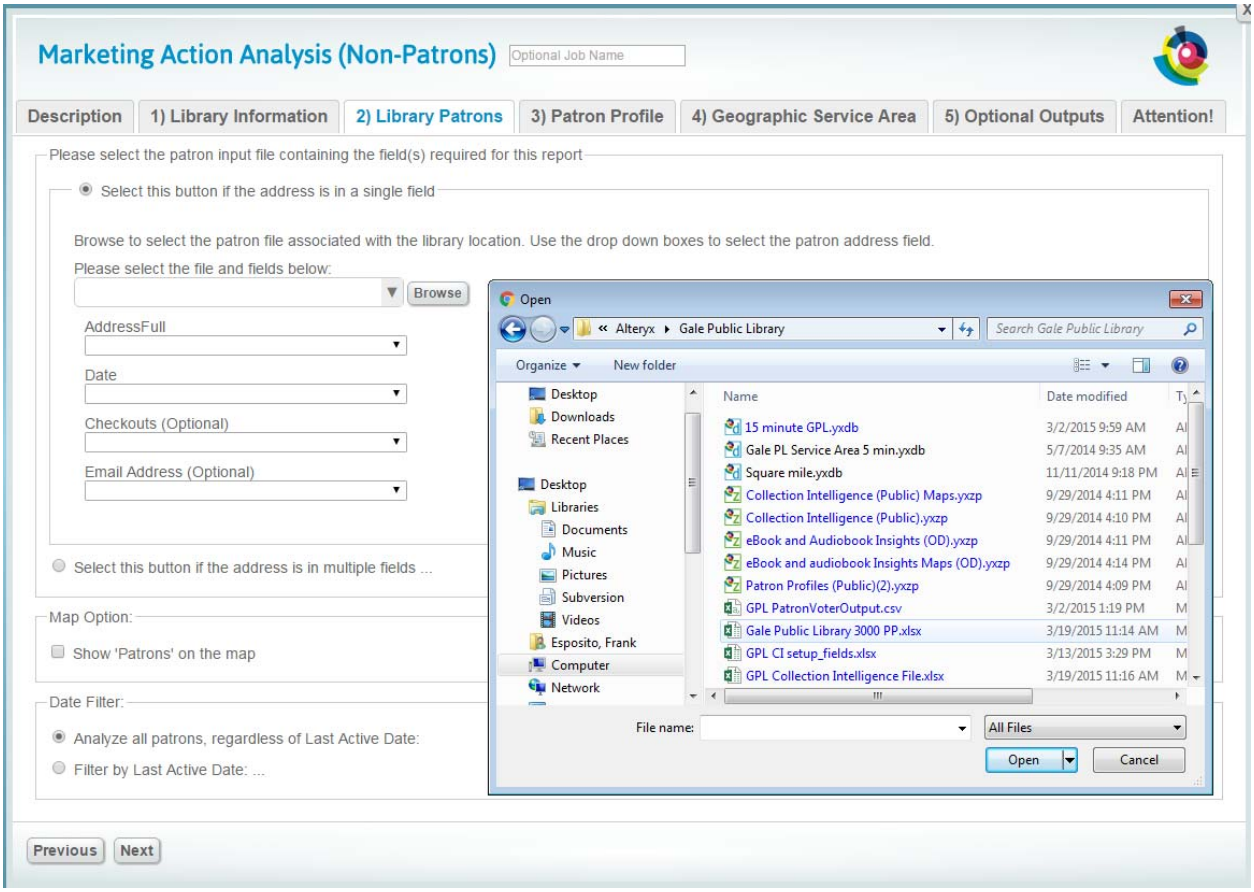
Once you select the address radio button for your input file, the next step is to click the 

button to browse input files located on your hard drive and/or network drive for uploading. This process is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You must have already extracted your input file from your ILS before accessing the app.

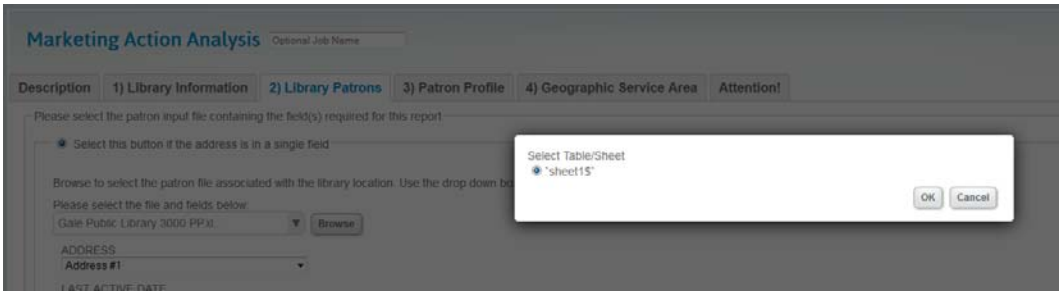
It is also critical that the format of the input file is identical to the sample file previously submitted to Gale during the validation phase of ordering. Changing the format may prevent the app from running properly. If any problems occur during running the app, contact Gale Customer Care.

As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.



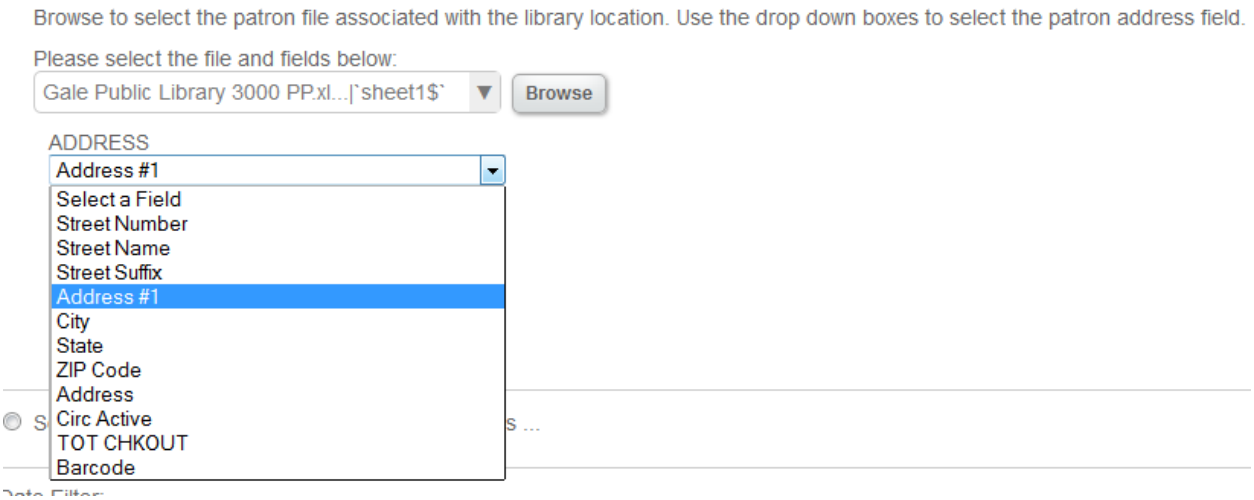
After you select the file, AOD asks you to confirm that the spreadsheet it selected from the input file is correct by clicking OK.

Note: Excel workbooks can contain multiple spreadsheets, which is why it is important to confirm the selection.



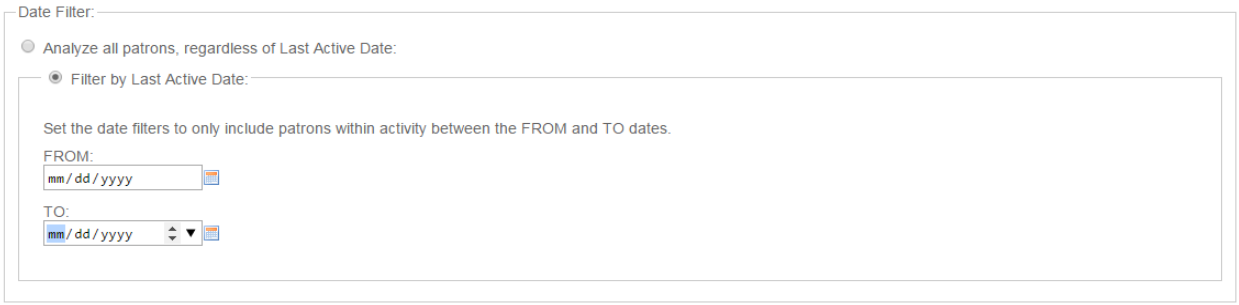
After you have confirmed the selection, AOD loads the file into the app and attempts to match the columnar fields in the input file to the names on each of the fields identified in this tab (address, activity date). If the heading in the input file is similar to the descriptive name on the screen AOD auto-selects that column. Verify that the app has selected the correct columns of data.

On fields that AOD has not auto-selected, click the drop-down list of the remaining fields and match the correct field in the input file to the required field.



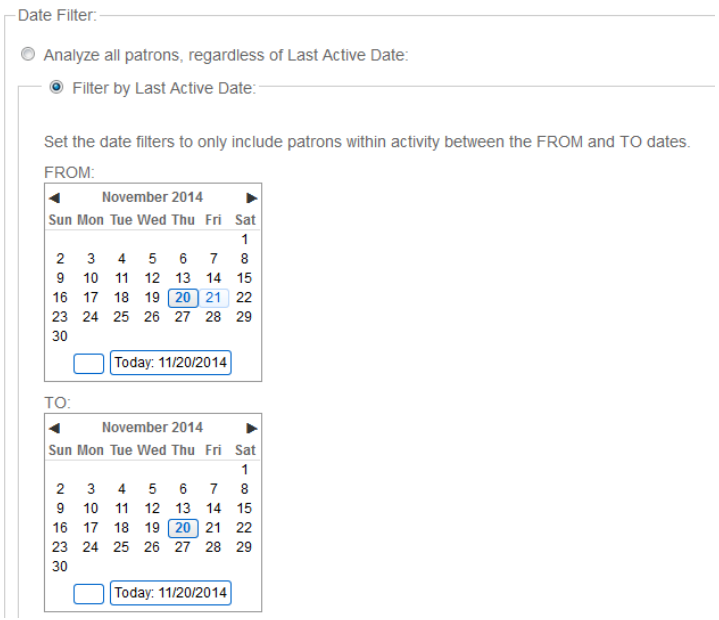
After aligning the fields to your input data file, you have the option to show patron household on the map that is created. Normally only non-patron households will be mapped but selecting this option will show both patrons and non-patrons in differing colors on the same map.

Finally you may filter your existing patrons by their last active date. The default, as shown below, is all patrons, regardless of Last Active Date.



Since the mailing list of NON-PATRONS is arrived at by subtracting existing patrons from a total list of all household addresses, how you answer the activity date filter for your existing patrons input file will determine if any existing patrons would be included in the mailing list you create.

If you elect to exclude groups of existing patrons by their activity date (thereby including them in your NON-PATRON mailing list), click on the FILTER BY LAST ACTIVE DATE and the following window appears:

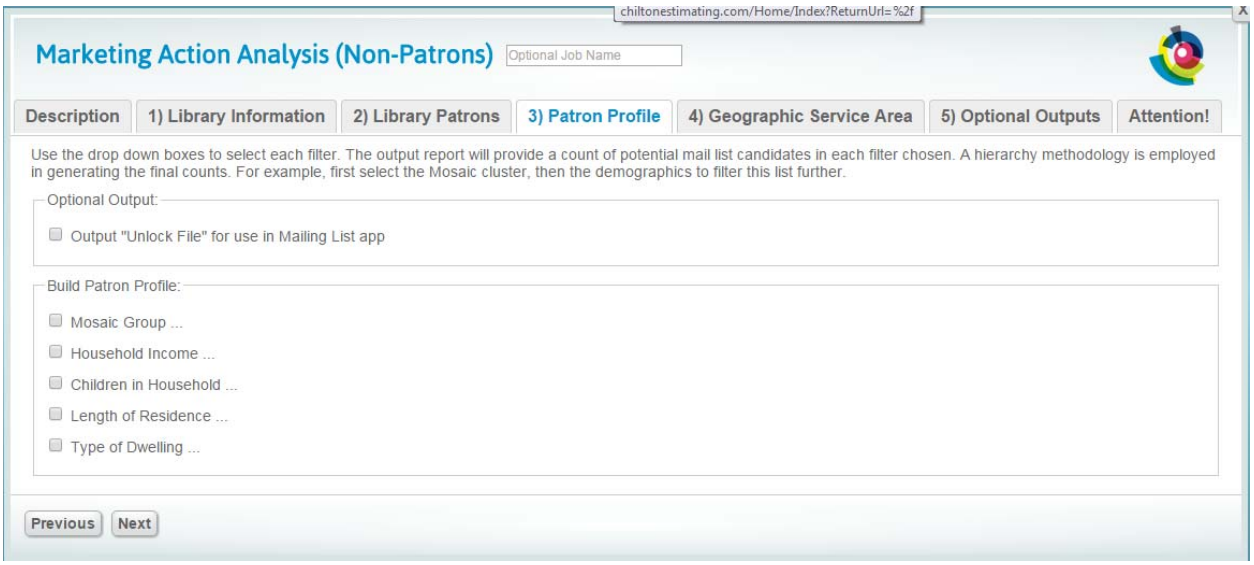


You can now select a beginning and ending date window of activity and the app will include any existing patron (in your NON-PATRON mailing list) that has a last active date that falls outside of this window.

Click at the lower left side of the screen to proceed to the next tab.

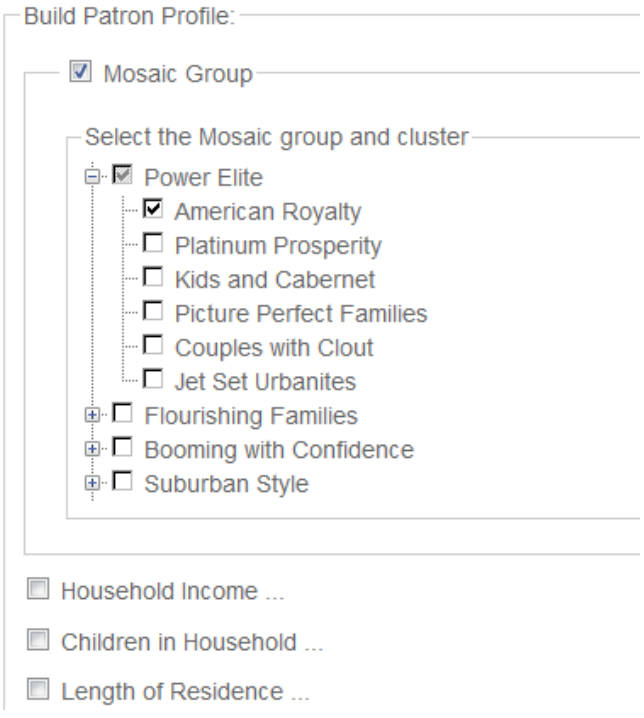
7.1.5 Marketing Action Analysis – Patron Profile

Your next step is to select specific filters to narrow down the exact demographic profile of the non-patrons you want to reach.



You will build your non-patron profile by selecting the demographic attributes. If you do not want to select a 'slice' or 'portion' of a demographic variable, simply do not click on the radio button next to it. All of that particular attribute will be included. On demographic attributes you do want to filter, click on the box next to the attribute to select each filter.

The output report will provide a count of potential mail list candidates in each filter chosen. A hierarchy methodology is employed in generating the final counts. For example, first select the Mosaic cluster, then the demographics to filter this list further. The following image demonstrates the selection of only one Mosaic cluster (American Royalty) which will NOT filter on household income, children in household or length of residence. In other words, the report will not exclude anyone based on their income, whether they have or not have children in the household, how long they have lived in their home or the type of dwelling they live in.

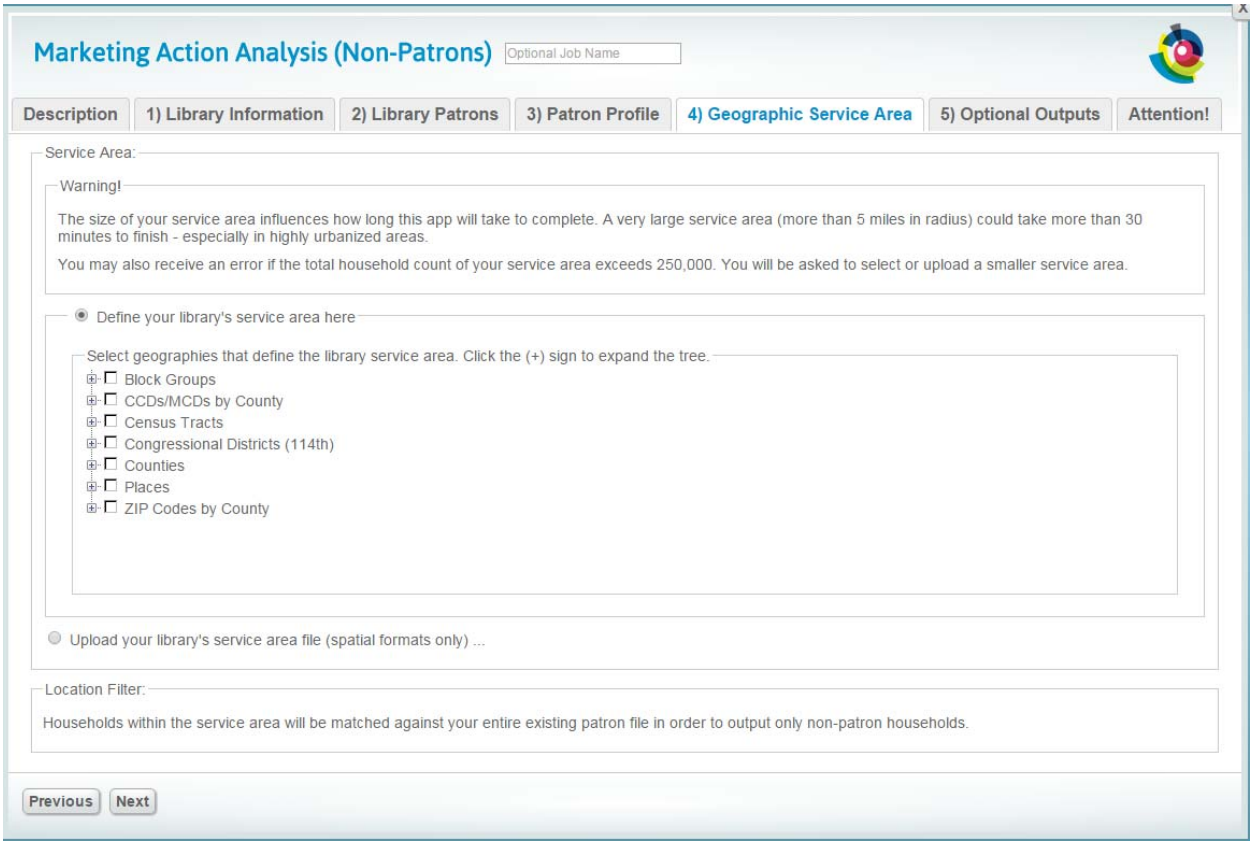


Click

at the lower left side of the screen to proceed to the next tab.

7.1.6 Marketing Action Analysis – Geographic Service Area

Your last step is to identify the geographic area you want to analyze. Examples of geographies include a) the library's service area, b) surrounding geographies outside the service area (to analyze non-patrons who use the library but don't reside in the service area, c) smaller geographies, such as census tracts and block groups (to analyze specific neighborhoods).



You can select geographies from the geography tree menu or upload a custom geography (GIS) spatial file. Spatial files from either MapInfo or ESRI must be packaged within a zipped folder before uploading. This app also accepts Alteryx (YXDB) and Google Earth (KML) format spatial files. If you are loading a spatial file, click the OR Upload your library's service area file (spatial formats only) button and then click on

button and locate the **spatial file** in the directory you previously saved it and select it. When the file appears in the file window, move to the next filtering question, which appears after the geography tree.

When the file appears in the file window, bypass the geography tree and move to the next filter, which appears after the geography tree.

If selecting a geography from the geography tree, first locate the type of geography to be loaded, such as ZIP code, county, block group, census tract, or CBSA. Next, click the **+ sign** to expand the list and continue until you locate the geography you want. If selecting from the geography tree, you may select a single geography selection by clicking the box next to it. (A check mark will appear.) You may select

multiple geographies by checking the box next to each one. If you select multiple geographies, they will be combined in the analysis.

Note: If you are interested in a county, do not select all its block groups. The AOD system calculates the smallest geography first and adds each individual selection to it. If you select all its block groups, calculation may take hours.

Click at the lower left side of the screen to proceed to the next tab.

7.1.7 Marketing Action Analysis – Optional Outputs

The next step in the process before running the report is to decide whether you want to include additional files or reports in the output.

There are two optional outputs available.

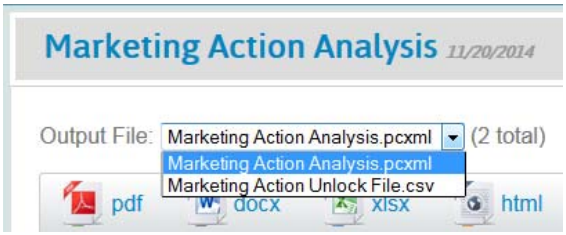
a) **Summary of your patron data "health"** – this will create a report outlining the number of records found in your patron file with the number of good/bad records found as well as the number of records found on Experian. It will also tell you the reasons for any bad data that was found.
b) **Patron records with address or date issues** – this will create a downloadable file of all patron address records that were bad and the reason why they could not be processed.

Simply click the box to include the options you want or leave it blank if you elect not to.

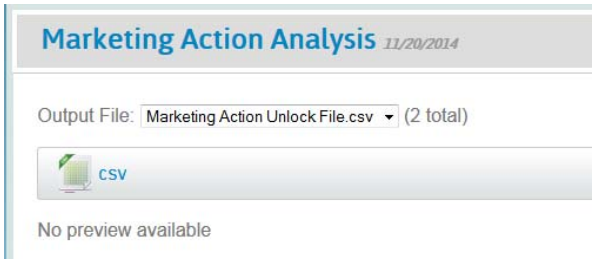
7.1.8 Marketing Action Analysis – Attention!

The final step in the process before running the simply requires you to be familiar with the type of outputs this particular app generates. There are no filters, uploads, or decisions that need to be made in this tab.

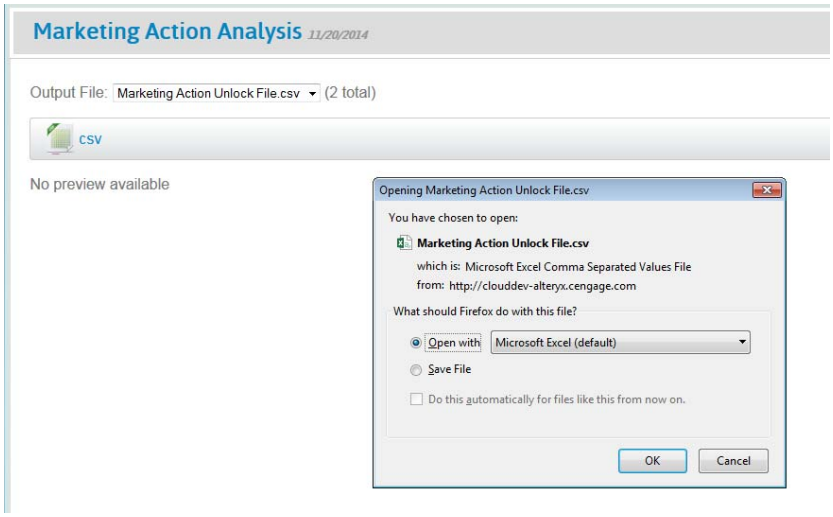
Specifically, this tab explains that you will receive two outputs. One will be the brief report that includes a table to identify the households that fell in to each one of the filters (along with a map) and the second will be the .csv file you will need to upload in to the Marketing Action Mailing List (Non-Patrons) app to generate the actual list. As shown below, you can switch from one output to the other by clicking on the drop down arrow at the top of the page to select between the two.



If you are satisfied with the count of households from the analysis, select the Marketing Action Unlock File.csv option and the screen will switch to that output, as shown below.



Simply click on the csv icon and a box will appear to allow you to open it or save it to your hard drive.



You can then find and select this file when running the Marketing Action Mailing List (Non-Patrons) app.

To run this app, click Run at the lower left side of the screen to begin the analysis. When the analysis completes, the following message will appear on screen if you are still logged on:

Please note that it is not necessary to wait until the analysis completes. By clicking on the upper right side of the screen, you can return to the original app screen and the analysis will run in the background.

You can also log out or execute another AOD app analysis. If you want to make minor modifications and re-run the analysis with a different filter, select the Re-Run button at the lower left side of the screen. All your information is saved and you can modify any earlier choices.

7.2 Marketing Action Mailing List (Non-Patrons)

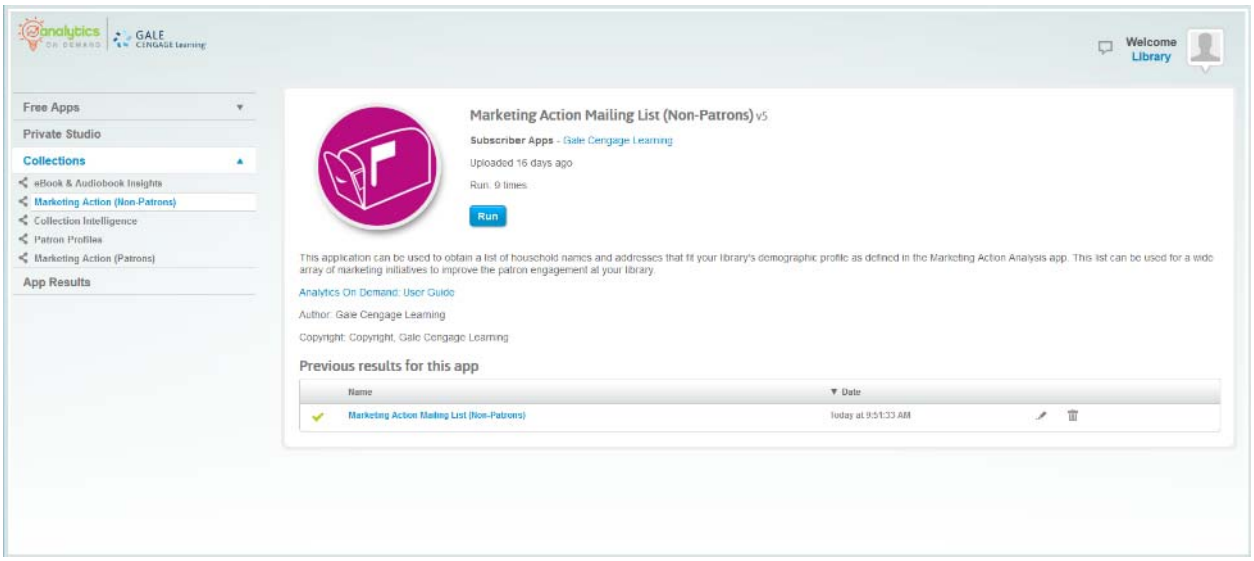
This section provides a detailed description of the *Marketing Action Mailing List (Non-Patrons)* app.

There are two separate apps included when you subscribe to the *Marketing Action (Non-Patrons)* app, the *Marketing Action Analysis* app and the *Marketing Action Mailing List (Non-Patrons) app*. The *Marketing Action Mailing List (Non-Patrons)* app is used to output the actual list of households created by the *Marketing Action Analysis* app.

This app will produce one output – the household mailing list of new patrons you are targeting.

7.2.1 Marketing Action Mailing List (Non-Patrons) – Initial Screen

The following screen appears when you click the *Marketing Action Mailing List (Non-Patrons)* app:



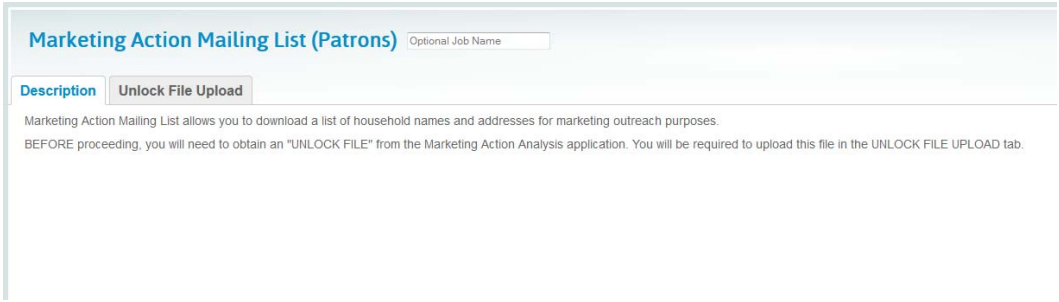
This screen provides the following key information:

- **Version number** – When the app is modified, the version number increments by one. Modifications may include enhancements, changes that accommodate input data files, and/or error corrections that are uncovered with repeated user access.
- **A summary description of what the Marketing Action Mailing List (Non-Patrons) app does:** "This application can be used to obtain a list of household names and addresses that fit your library's demographic profile as defined in the Marketing Action Analysis app. This list can be used for a wide array of marketing initiatives to improve the patron engagement at your library."
- **Link to Analytics On Demand User Guide** – clicking on this link takes you directly to the AOD user guide.
- **Listing of previous reports** – As discussed in Section 2.2.2, this list includes previous results (that you did not delete) which are currently stored on the Amazon cloud server.

7.2.2 Marketing Action Mailing List (Patrons) – Description

When you click

, the following screen appears. Note that the screen displays only two tabs. (Some apps may have more or fewer tabs.) The **Description** tab explains what is required to run the app, including a high-level overview of the commands.



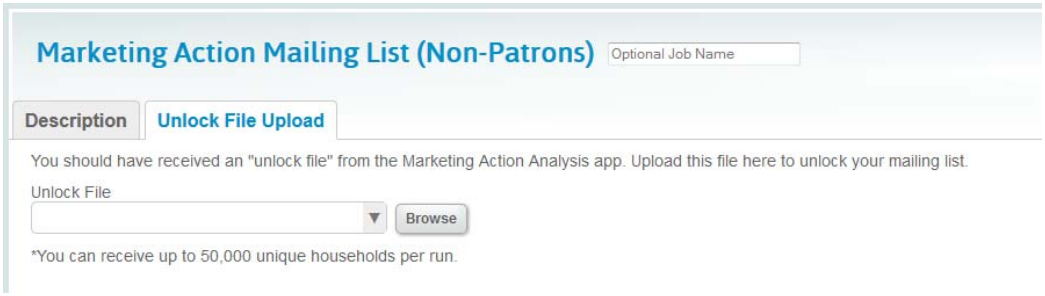
This tab allows you to name an output report in the text box located in the upper left portion of the screen:

By using unique names, you can easily identify previous runs if you have not deleted them. You can name a report by the options selected or by the date on which it was run.

To proceed to the next tab, click the Next button on the lower left side of the screen or the tab at the top of the screen.

7.2.3 Marketing Action Mailing List (Non-Patrons) – Unlock File Upload

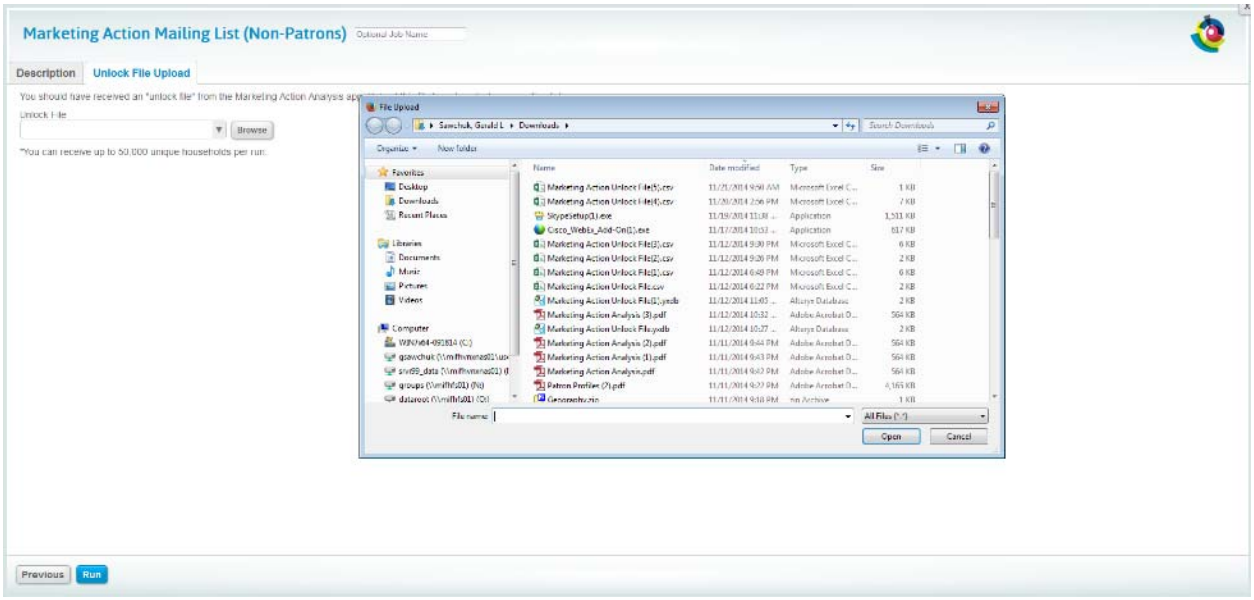
The **Unlock File Upload** tab is where you upload the .csv file you created in the Marketing Action Analysis (Non-Patrons) app.



Click the Browse button to browse for the .csv input file located on your hard drive and/or network drive for uploading. This process (of uploading) is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You must have already ran the Marketing Action Analysis (Non-Patrons) app and saved the .csv input file before accessing this app.

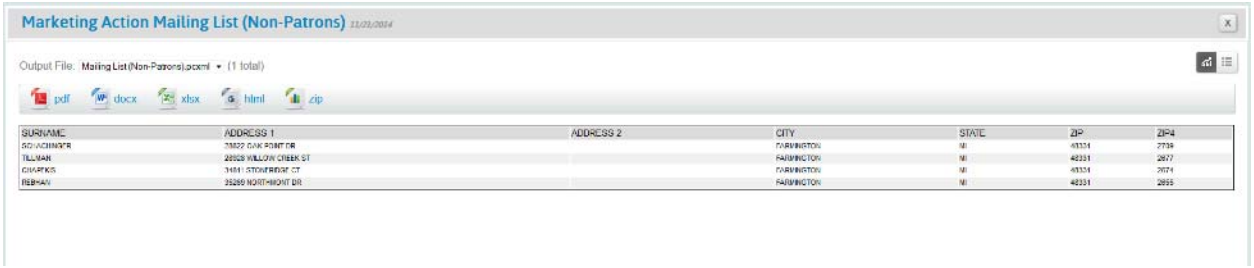
As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.



After you select the .csv file you may immediately run the app.

To run this app, click at the lower left side of the screen to begin the creation of the mailing list. When the mailing list is complete, the following message will appear on screen if you are still logged on:

The mailing list will appear on screen. Select the output you want to save the mailing to by clicking on the file types above the list.



8.0 PATRON VOTER ANALYSIS

8.0 PATRON VOTER ANALYSIS

This section provides a detailed description of the *Patron Voter Analysis* app.

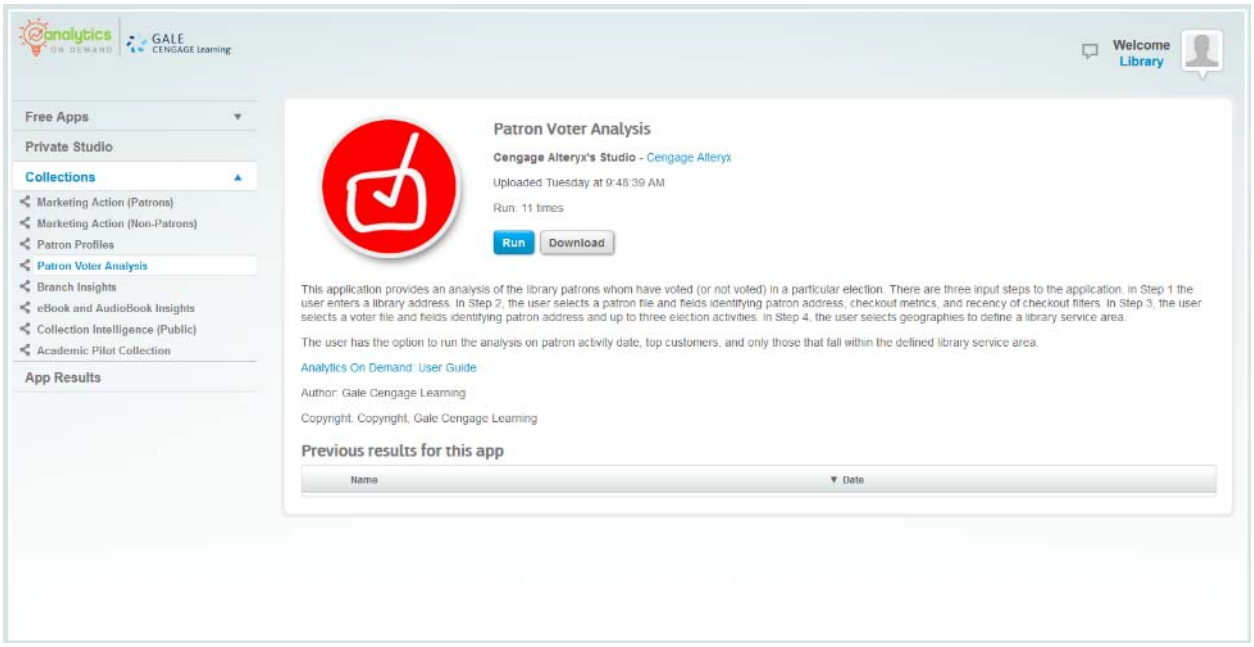
8.1 Patron Voter analysis

This section provides a detailed description of the *Patron Voter Analysis* app. This app provides a list of existing patrons who have voted (or not voted) in previous elections in order for the library to provide outreach to encourage their patrons to get to the polls to support any ballot initiatives that concern their local library.

There are three input steps to the application. In Step 1 the user enters a library address. In Step 2, the user selects a patron file and fields identifying patron address, checkout metrics, and recency of checkout filters. In Step 3, the user selects a voter file and fields identifying patron address and up to three election activities. In Step 4, the user selects geographies to define a library service area.

8.1.1 Patron Voter Analysis – Initial Screen

The following screen appears when you click the *Patron Voter analysis* app:



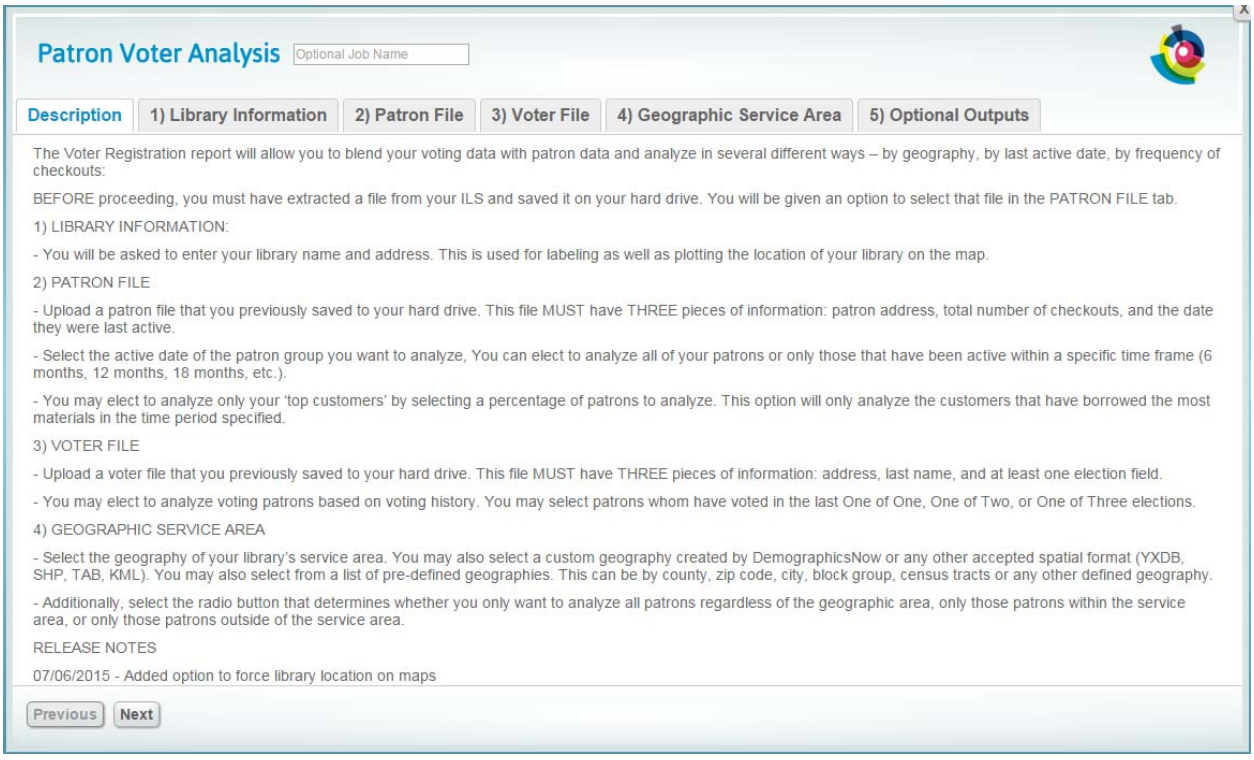
This screen provides the following key information:

- **Version number** – When the app is modified, the version number increments by one. Modifications may include enhancements, changes that accommodate input data files, and/or error corrections that are uncovered with repeated user access.

- **A summary description of the app** – "This application provides an analysis of the library patrons whom have voted (or not voted) in a particular election. There are three input steps to the application. In Step 1 the user enters a library address. In Step 2, the user selects a patron file and fields identifying patron address, checkout metrics, and recency of checkout filters. In Step 3, the user selects a voter file and fields identifying patron address and up to three election activities. In Step 4, the user selects geographies to define a library service area. The user has the option to run the analysis on patron activity date, top customers, and only those that fall within the defined library service area."
- **Link to Analytics On Demand User Guide** – clicking on this link takes you directly to the AOD user guide
- **Listing of previous reports** – As discussed in Section 2.2.2, this list includes previous results (that you did not delete) which are currently stored on the Amazon cloud server.

8.1.2 Patron Voter Analysis – Description

When you click Run, the following screen appears. Note that the screen displays six tabs. (Some apps may have more or fewer tabs.) The **Description** tab explains what is required to run the app, including a high-level overview of the commands



This tab allows you to name an output report in the text box located in the top left portion of the screen:

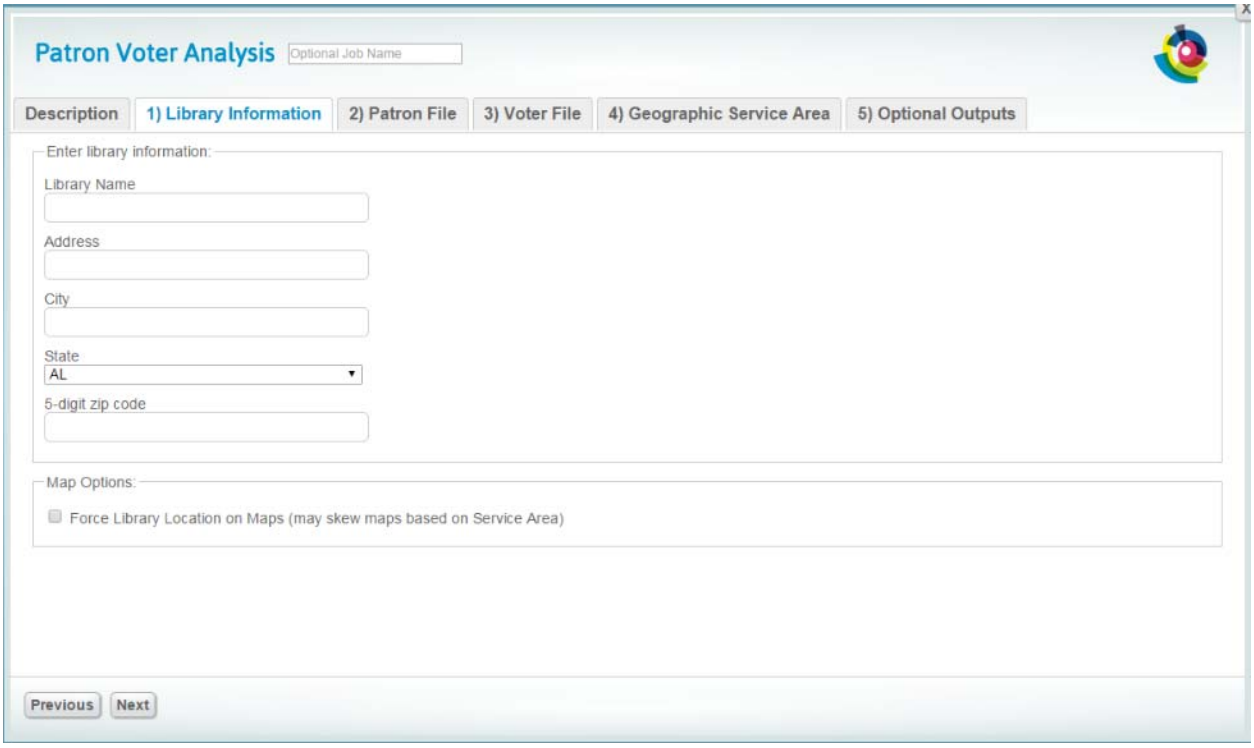
By using unique names, you can easily identify previous runs if you have not deleted them. You can name a report by the options selected or by the date on which it was run.

To proceed to the next tab, click the Next button on the lower left side of the screen or the tab at the top of the screen.

8.1.3 Patron Voter Analysis – Library Information

The **Library Information** tab provides boxes where you can input the name of your library and its address. This information is used for three purposes:

- To label the report generated
- To identify the spatial GIS point of the library's location in order to map this on map views in the report
- To calculate the drive time for each library patron from home to the library
- To choose whether or not to display the library location on any maps views when it is outside of the selected Service Area



Click at the bottom left side of the screen to proceed to the next tab.

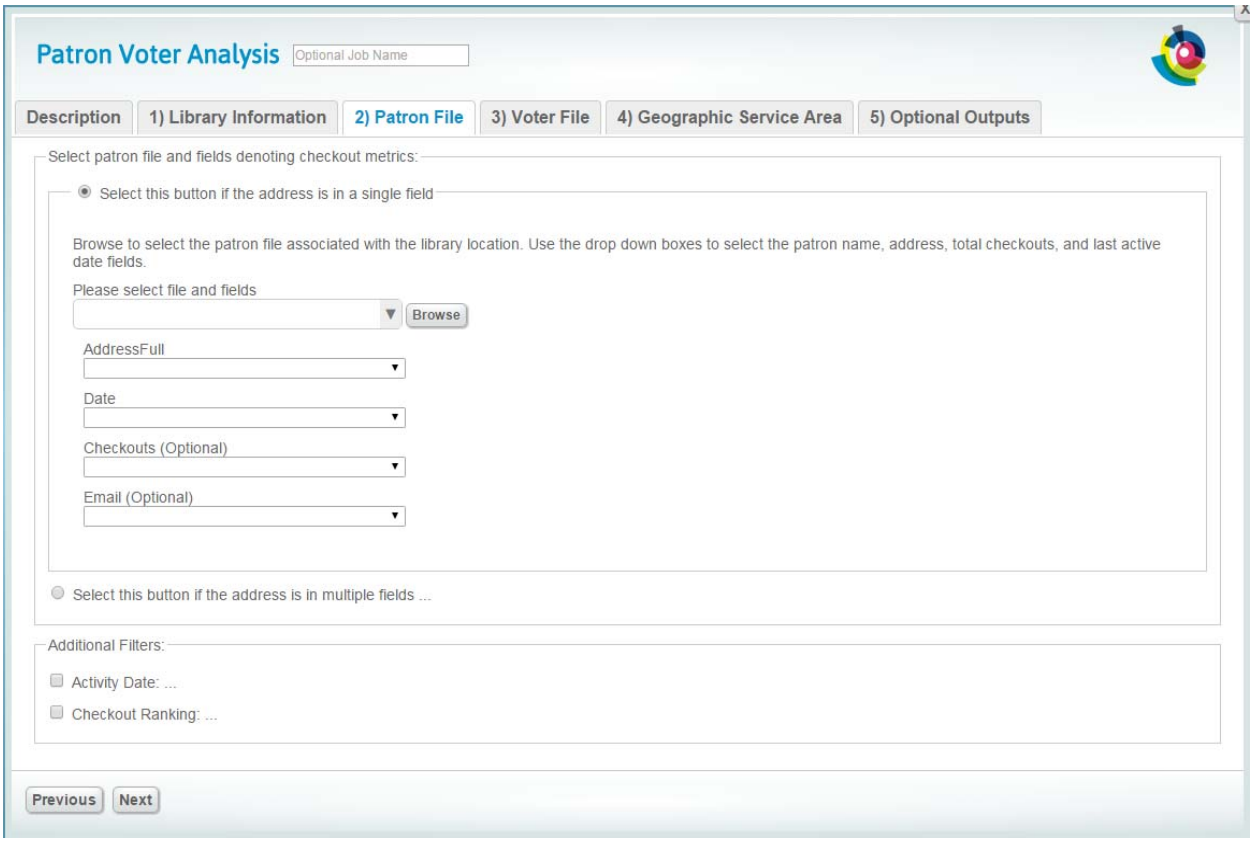
8.1.4 Patron Voter Analysis – Patron File

Use the **Patron File** tab to upload a data file—normally an Excel—file from your ILS. This file requires three specific pieces of information: patron address, total checkouts, and a patron's last active date.

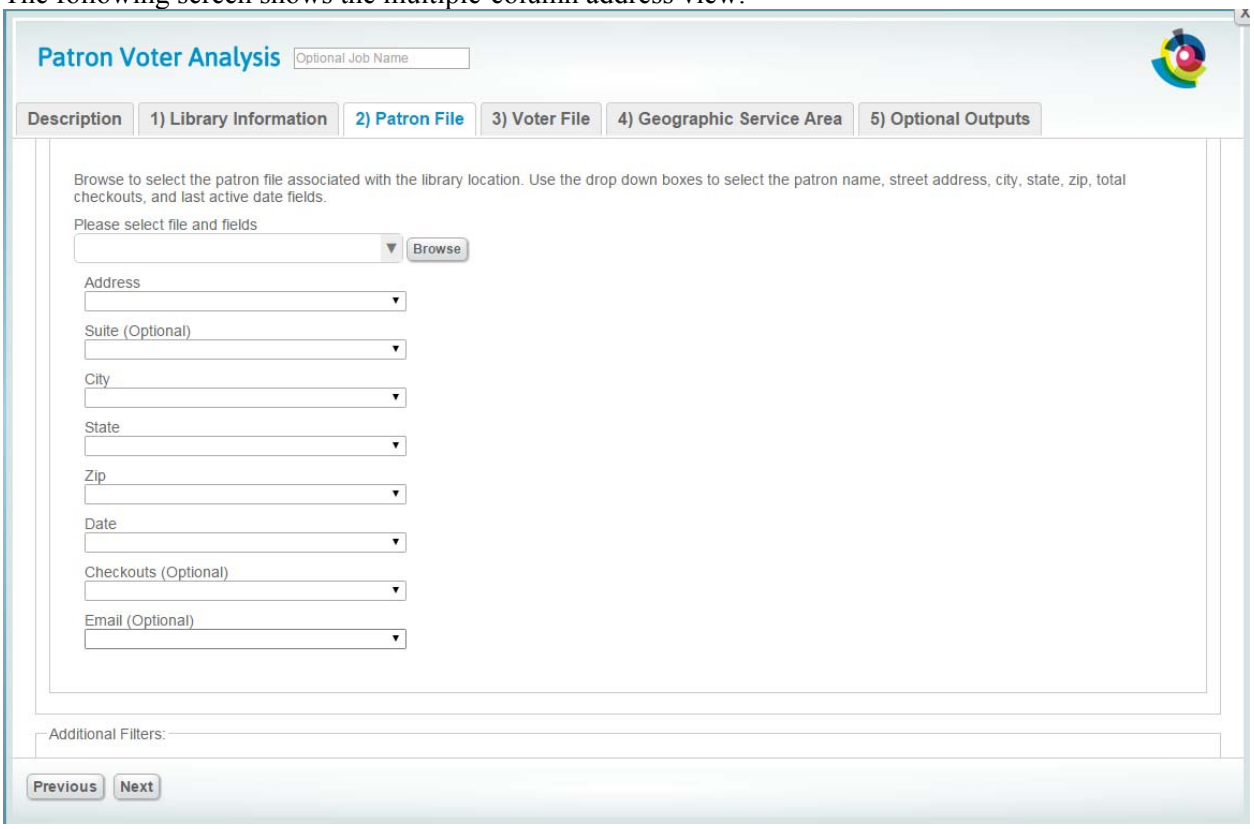
You have flexibility in the type of data to include. For example, for total checkouts, your file could include total checkouts over the life of the library card or some subset filtered by ILS extraction. Perhaps the ILS extract includes only six months or a year of checkouts. For last active date—if the ILS allows it—you may want to include only the last activity date for physical checkouts, the last activity date for computer use, or any other date tracked in in the ILS. This allows filtering not only by the *Patron Voter Analysis* app (more on this to follow) but also on the ILS extract date you used to create the AOD input file.

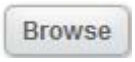
The following screenshots show data for an input file that includes a patron address. Depending on your ILS, a patron address may be extracted and placed in multiple columns—one or two for street address, one for city, one for state, and one for ZIP code. The view presented depends on the radio button you select. (The single-column address view is the default.)

This screen shows the single-column address view.



The following screen shows the multiple-column address view.



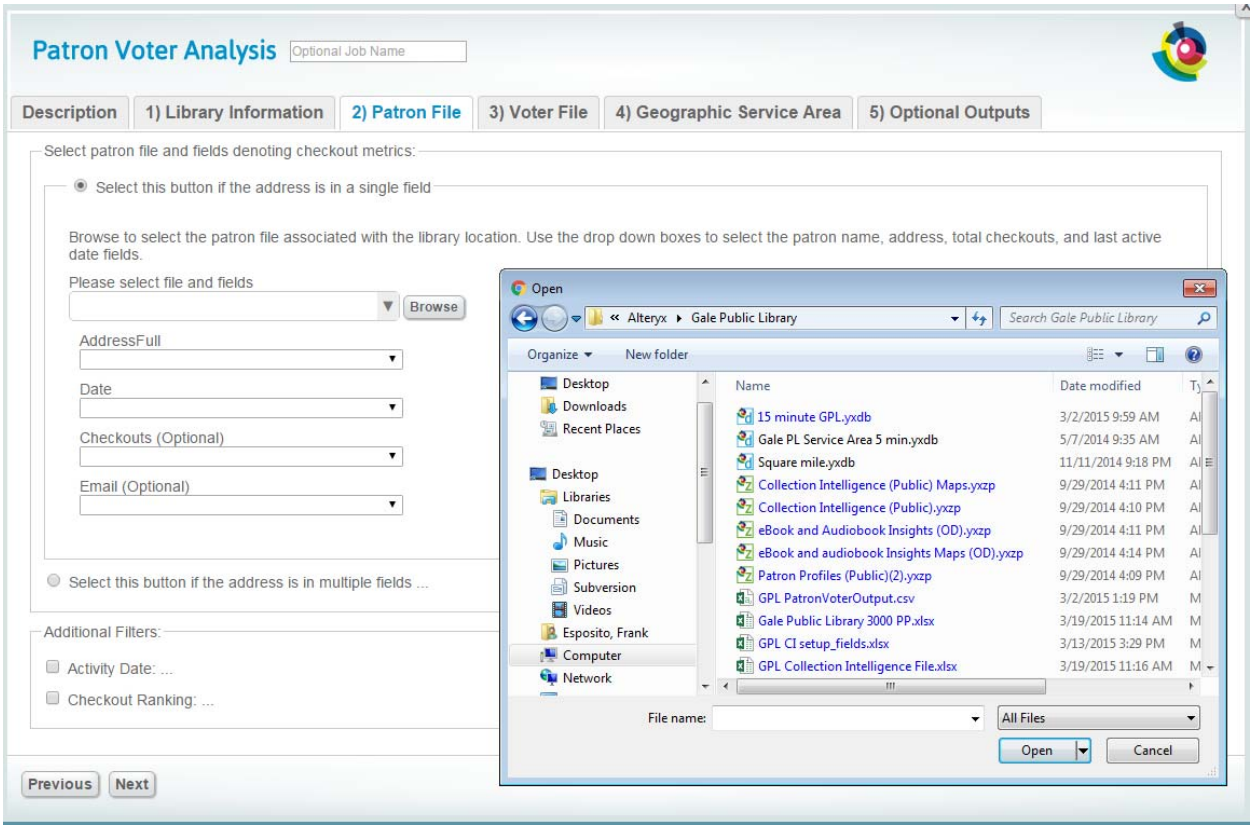
Once you select the address radio button, the next step is to click the 

button to browse input files located on your hard drive and/or network drive for uploading. This process is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You **must** have already extracted your input file from your ILS before accessing the app.

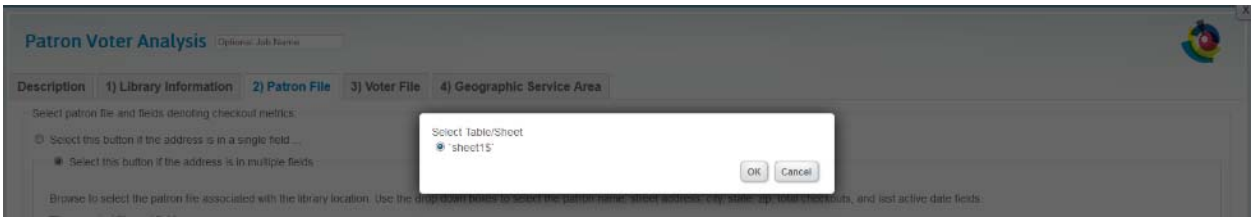
It is also critical that the format of the input file is identical to the sample file previously submitted to Gale during the validation phase of ordering. Changing the format may prevent the app from running properly. If any problems occur during running the app, contact Gale Customer Care.

As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.

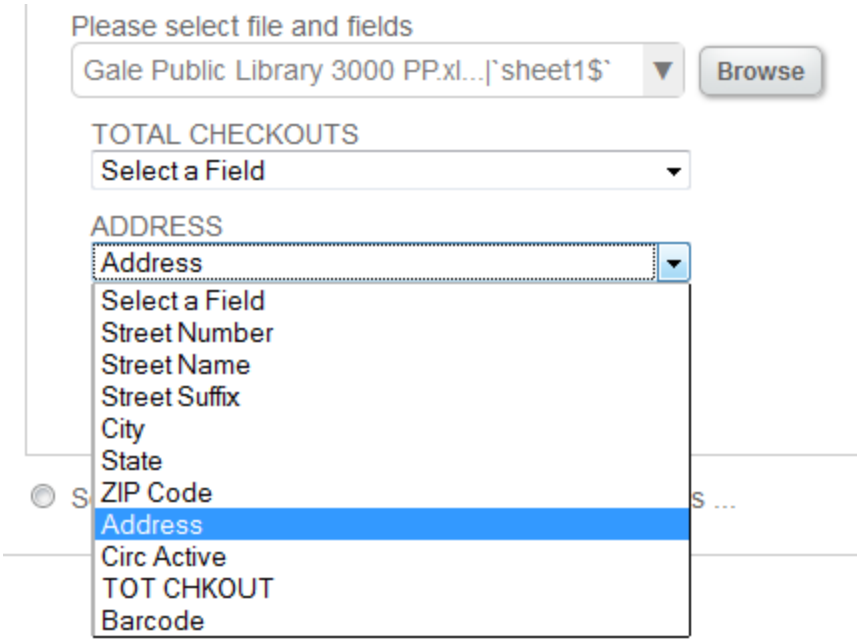


After you select the file, AOD asks you to confirm that the spreadsheet it selected from the input file is correct by clicking OK.

Note: Excel workbooks can contain multiple spreadsheets, which is why it is important to confirm the selection.

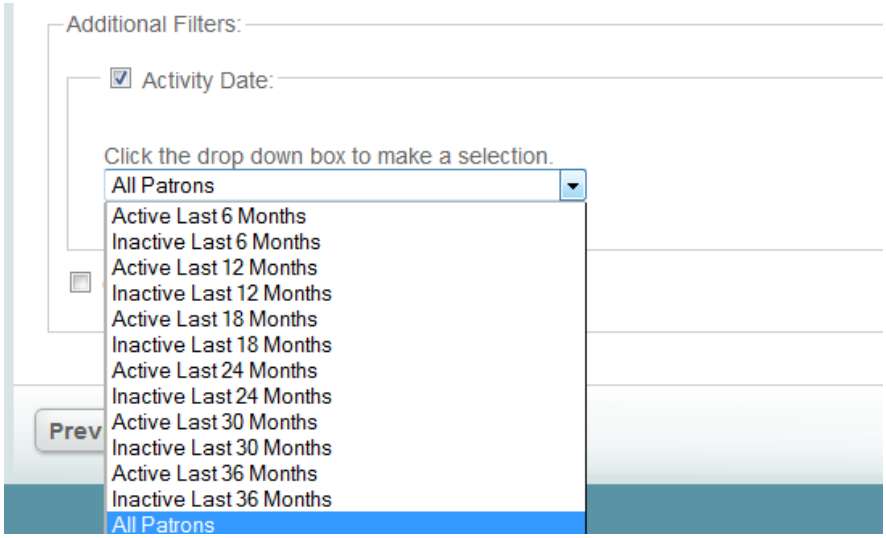


Once you have confirmed the selection, AOD loads the file into the app and attempts to match the columnar fields to the names on each of the fields identified in this tab (checkouts, address, active date, and email). If the heading in the input file is similar to the descriptive name on the screen AOD auto-selects that column. Verify that the app has selected the correct columns of data. If not, click the drop-down list **Please select file and fields** to deselect the choice made and replace it with the correct choice. On fields that AOD has not auto-selected, click the drop-down list of the remaining fields and match the correct field in the input file to the required field.



After you upload your patron file, scroll down the screen and you may choose two filters a) patron activity date, or b) percentage of top patrons

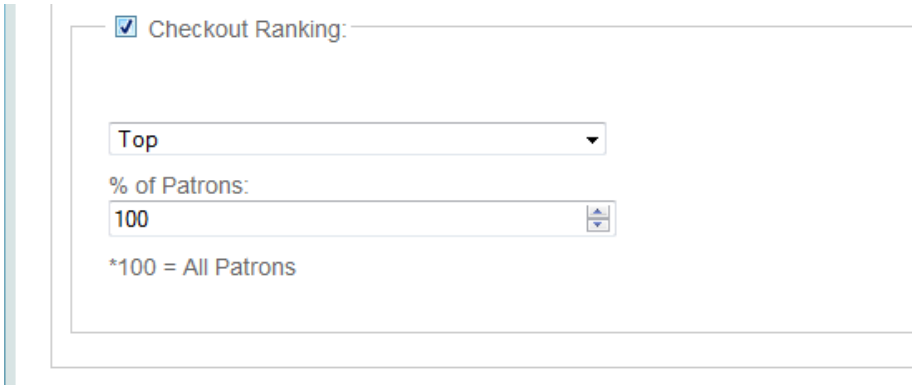
As noted, the first filter is **patron activity date**. Click the icon for a drop-down menu of choices. The default is the All Patrons.



This means that all patrons, regardless of activity on their library card, are included in the **Patron Voter Analysis**. To change this selection, select the option you prefer. Note that this filter is keyed to the date field in the **Patron File** tab.

Note: You can define the extract activity date column differently. That is, you can choose a date from cardholder inception or a period of time defined by the ILS extraction when creating the input file. The most common choice is the last date of patron activity, with no filter applied when extracting the file from the ILS.

The next filter, **Checkout Ranking**, allows you to select a percentage of your heaviest (or least heaviest) users, as measured by **Total Checkouts** column data in the user input file.



By clicking the arrows to the right of the box, you can choose to analyze a percentage of your very best (or your low usage) "customers." This could be the top five (5) percent of users, as measured by a highest-to-lowest ranking of checkouts. This selection is best used after first analyzing all patrons and then doing selective analysis on smaller groups of patrons. You may, for example, want to do a percentage ranking of usage by patrons from a smaller geography or by patrons who live outside the service area.

Click Next at the lower left side of the screen to proceed to the next tab.

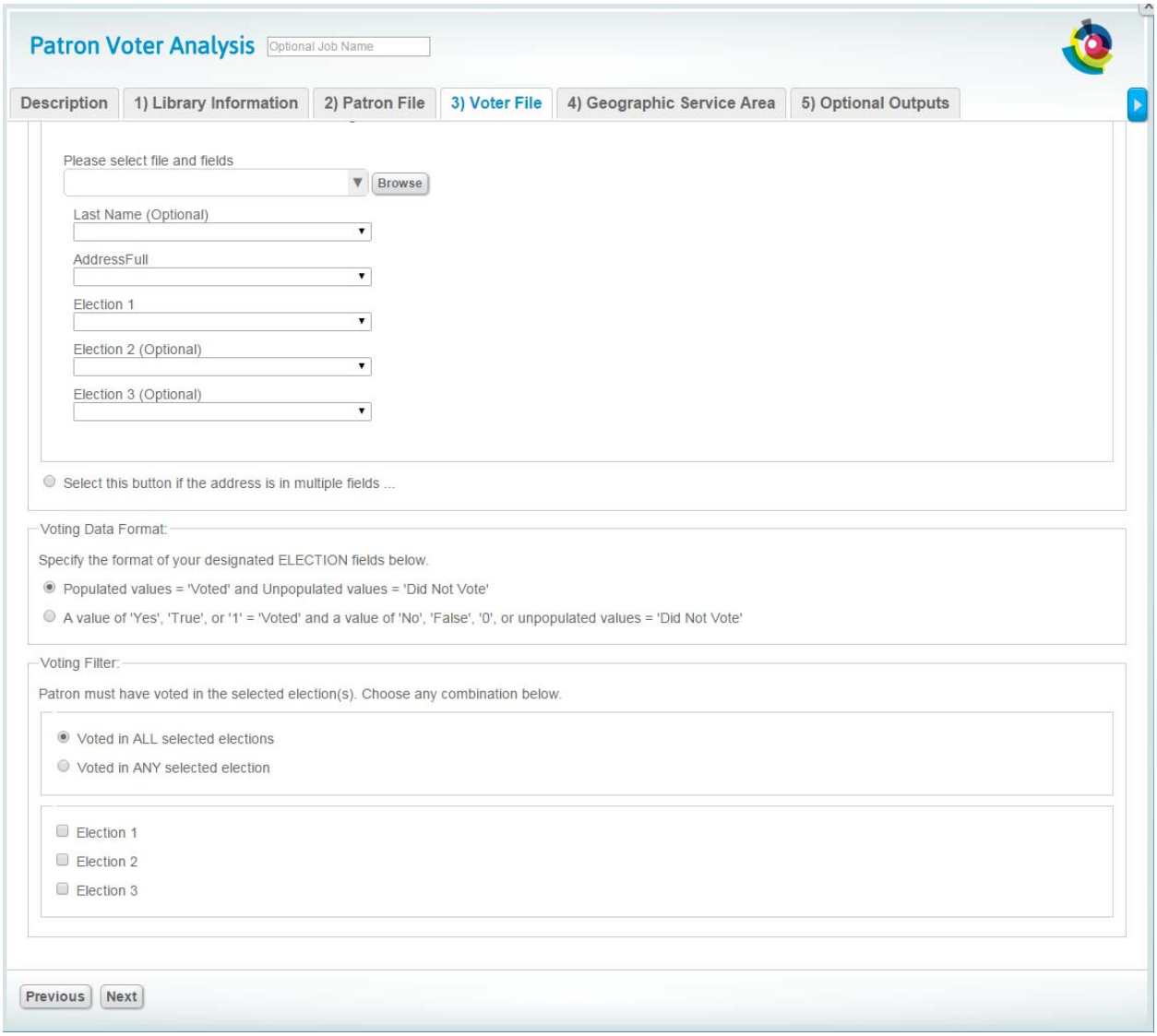
After aligning the necessary fields, click Next at the lower left side of the screen to proceed to the next tab.

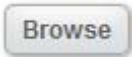
8.1.5 Patron Voter Analysis – Voter File

Use the **Voter File** tab to upload a data file—normally an Excel—file from local government office that includes citizen voting records. This file requires three specific pieces of information: last name, address, and each citizens voting record in past elections, listed in separate columns in the spreadsheet.

The following screenshots show data for an input file that includes a patron address. Depending on your input file, a citizen's address may be extracted and placed in multiple columns—multiple columns for street address, one for city, one for state, and one for ZIP code. If the street number, street and street suffix are in separate columns, you MUST combine these columns using the **Combine Columns** free app in AOD. The view presented depends on the radio button you select. (The single-column address view is the default.)

This screen shows the single-column address view. The multiple address view is similar to the Patron File where the address is contained within multiple fields.



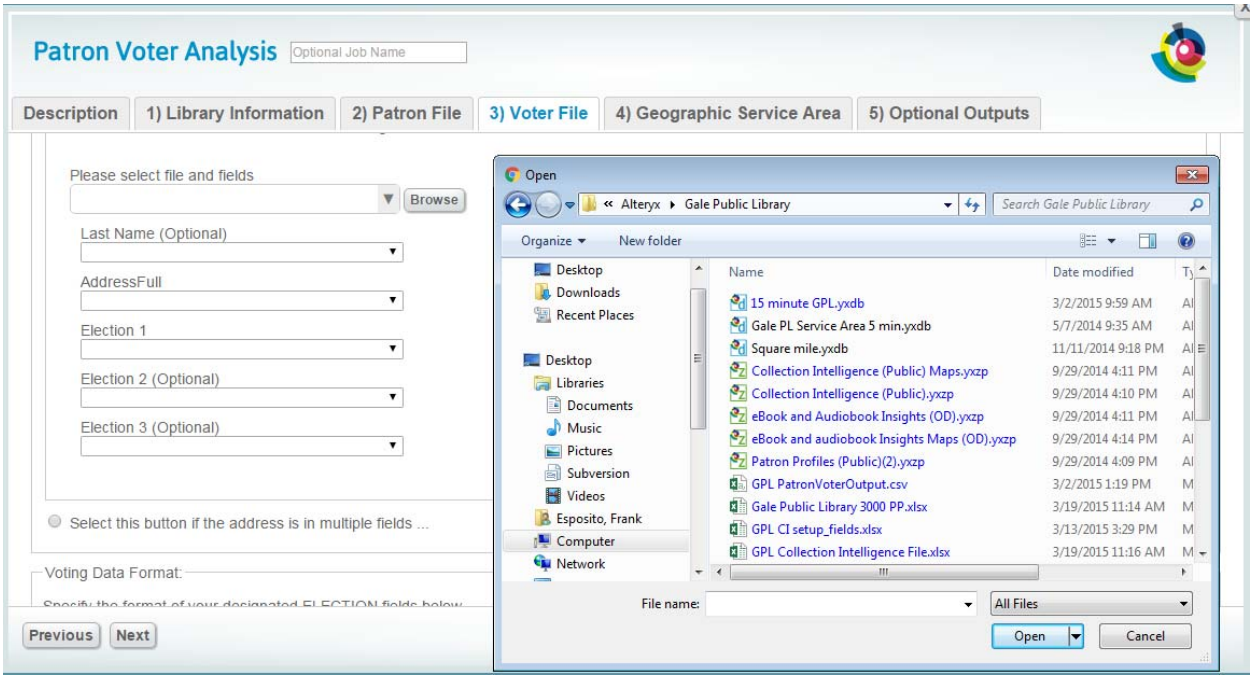
Once you select the address radio button, the next step is to click the 

button to browse your directory for the voter file located on your hard drive and/or network drive for uploading. This process is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You **must** have already received your input file from your local government office before accessing the app.

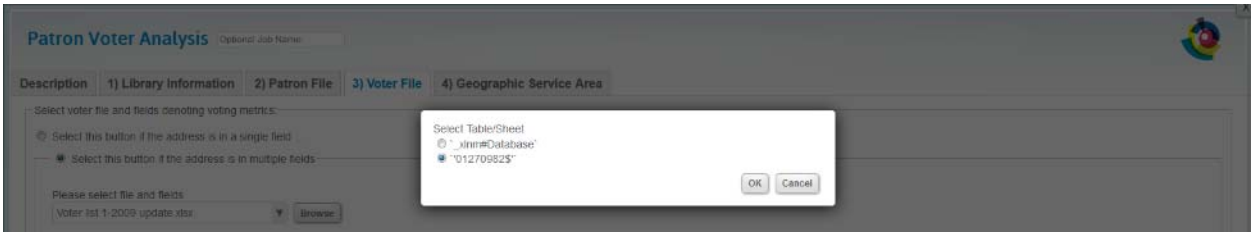
It is also critical that the format of the input file is identical to the sample file previously submitted to Gale during the validation phase of ordering. Changing the format may prevent the app from running properly. If any problems occur during running the app, contact Gale Customer Care.

As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.



After you select the file, AOD asks you to confirm that the spreadsheet it selected from the input file is correct by clicking OK.

Note: Excel workbooks can contain multiple spreadsheets, which is why it is important to confirm the selection.

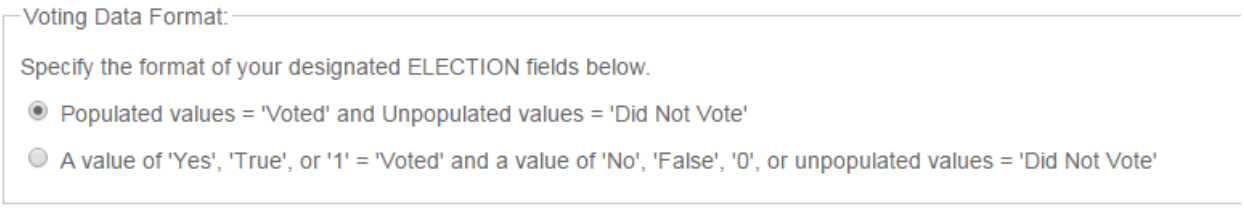


Once you have confirmed the selection, AOD loads the file into the app and attempts to match the columnar fields to the names on each of the fields identified in this tab (address, and elections). If the heading in the input file is similar to the descriptive name on the screen AOD auto-selects that column.

Verify that the app has selected the correct columns of data. If not, click the drop-down list **Please select file and fields** to deselect the choice made and replace it with the correct choice.

On fields that AOD has not auto-selected, click the drop-down list of the remaining fields and match the correct field in the input file to the required field.

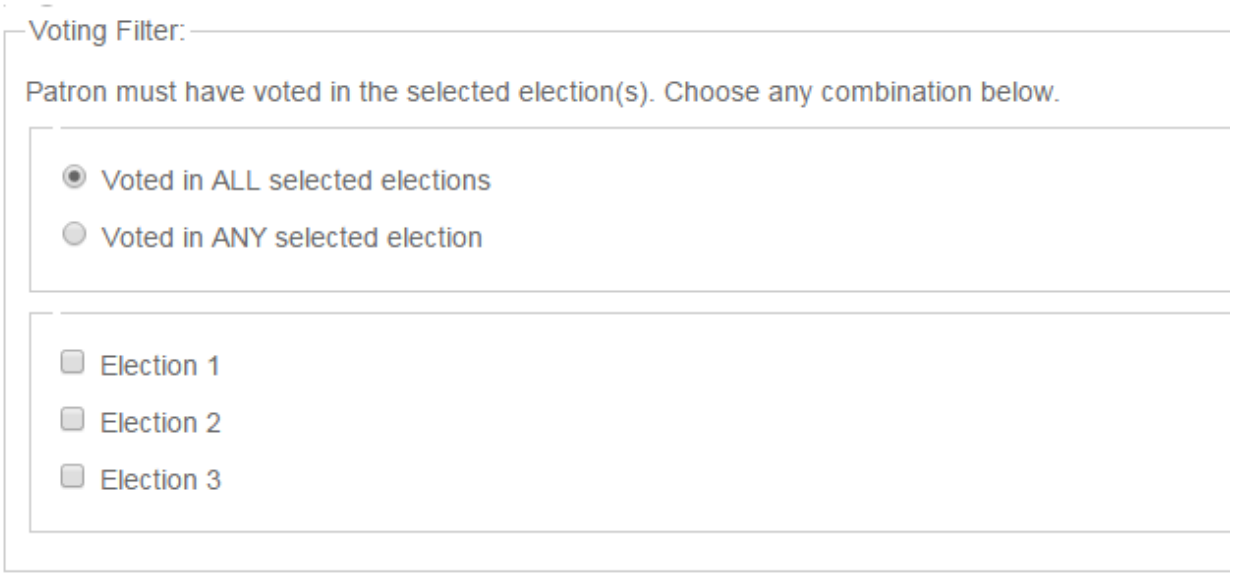
After you upload your voter file, scroll down the screen and you may specify the format of the election datafields.



There are two options:

a) **Populated values** – this means that if there is any data in the field then it should be interpreted as the patron DID vote. If the field is empty then it is assumed the patron DID NOT vote.
b) **A value of** … - If the value 'Yes', 'True', or '1' then it is interpreted as the patron DID vote. If there is any other value or the field is empty then it is assumed the patron DID NOT vote.

Next you prompted to select if you want to report on ALL elections or ANY election and which elections to include in the analysis.



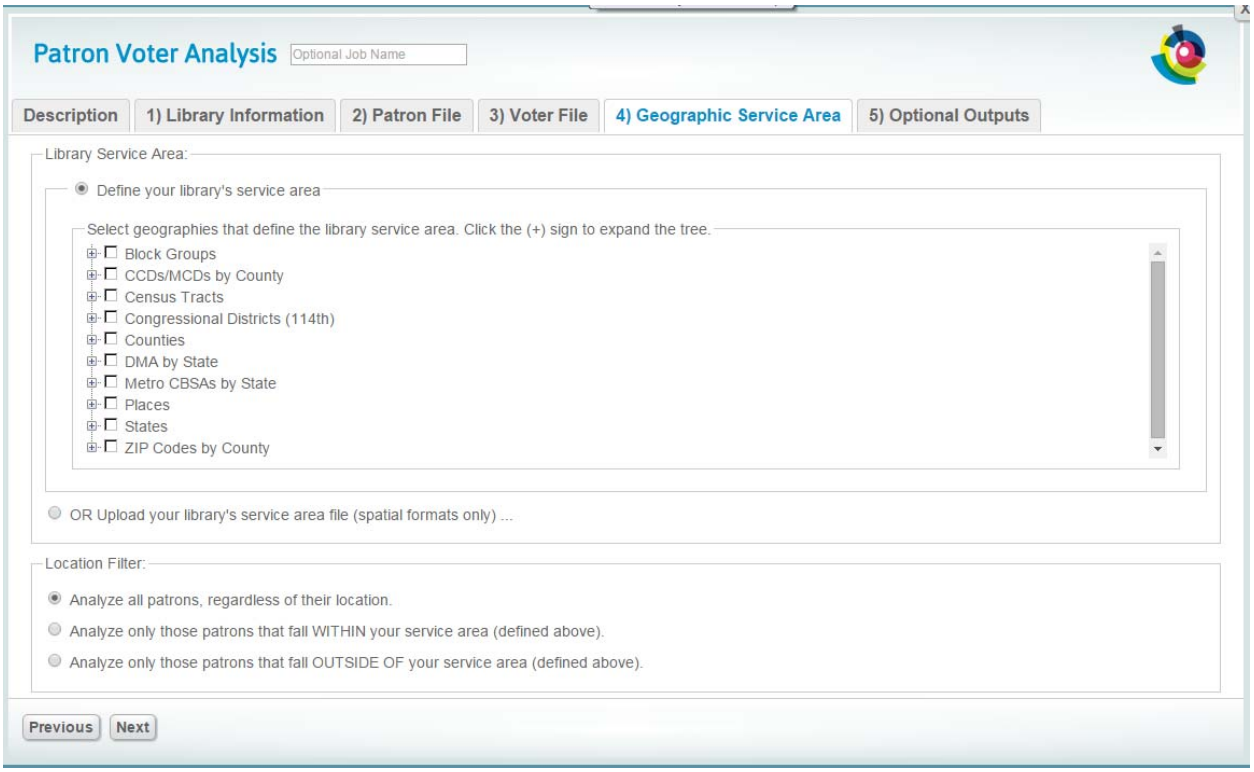
a) **Voted in ALL selected elections** – will include all patrons who voted in ALL the elections that you check off below (i.e. Election 1, Election 2, Election 3). For example, if you select this option and then check off Election 1 and Election 3 the patron must have voted in both Election 1 and Election 3 to be included.
b) **Voted in ANY selected elections** – will include all patrons who voted in ANY of the elections that you check off below (i.e. Election 1, Election 2, Election 3). For example, if you select this option and then check off Election 2 and Election 3 the patron must have voted in either Election 1 or Election 3 to be included.

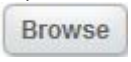
Click

at the lower left side of the screen to proceed to the next tab.

8.1.6 Patron Voter Analysis – Geographic Service Area

Your next step is to identify the geographic area you want to analyze. Examples of geographies include a) the library's service area, b) surrounding geographies outside the service area (to analyze patrons who use the library but don't reside in the service area, c) smaller geographies, such as census tracts and block groups (to analyze specific neighborhoods).



You can select geographies from the geography tree menu or upload a custom geography (GIS) spatial file. Spatial files from either MapInfo or ESRI must be packaged within a zipped folder before uploading. This app also accepts Alteryx (YXDB) and Google Earth (KML) format spatial files.. If you are loading a spatial file, click the OR Upload your library's service area file (spatial formats only) button and then click on 

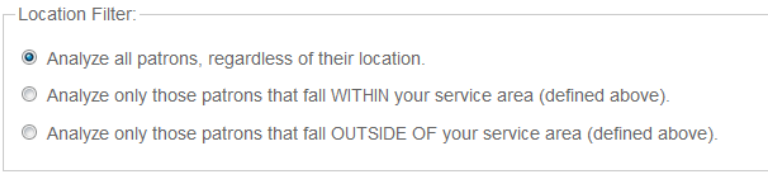
button and locate the **spatial file** in the directory you previously saved it and select it. When the file appears in the file window, move to the next filtering question, which appears after the geography tree.

After you select a geography, scroll down the screen and choose the final filter: whether to include or exclude patrons outside the geography selected.

Note: If you are interested in a county, do not select all its block groups. AOD calculates the smallest geography first and adds each individual selection to it. If you select all its block groups, calculations may take hours.

After you select a geography, scroll down the screen to the final filter: whether to include or exclude patrons outside the geography selected.

Finally, the **location filter** looks at whether patrons live inside or outside the library service area. The default includes all patrons, regardless of where they live. Clicking **Analyze only those patrons that fall WITHIN your service area (defined above)** includes patrons only if their addresses lie within the service area geography you defined earlier. Clicking **Analyze only those patrons that fall OUTSIDE OF your service area (defined above)** includes patrons only if their addresses lie outside the service area geography you defined earlier.



8.1.7 Patron Voter Analysis – Optional Outputs

The final step in the process before running the report is to decide whether you want to include additional files or reports in the output.

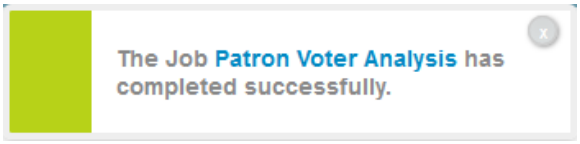
There are two optional outputs available.

a) **Summary of your patron data "health"** – this will create a report outlining the number of records found in your patron file with the number of good/bad records found as well as the number of records found on Experian. It will also tell you the reasons for any bad data that was found.
b) **Voter records that successfully matched patron record** – this will create a downloadable file of all voter records that matched the filter criteria specified on the Voter File tab.
c) **Voter records with address or date issues** – this will create a downloadable file of all voter address records that were bad and the reason why they could not be processed.

Simply click the box to include the options you want or leave it blank if you elect not to

After selecting the **patron filter**, click

at the lower left side of the screen to begin the analysis. When the analysis completes, the following message will appear on screen if you are still logged on:



Please note that it is not necessary to wait until the analysis completes. By clicking
on the upper right side of the screen, you can return to the original app screen and the analysis will run in the background.

You can also log out or execute another AOD app analysis. If you want to make minor modifications and re-run the analysis with a different filter, select the

button at the lower left side of the screen. All your information is saved and you can modify any earlier choices to re-run the analyis.

9.0 BRANCH INSIGHTS

9.0 BRANCH INSIGHTS

This section provides a detailed description of the *Branch Insights* app.

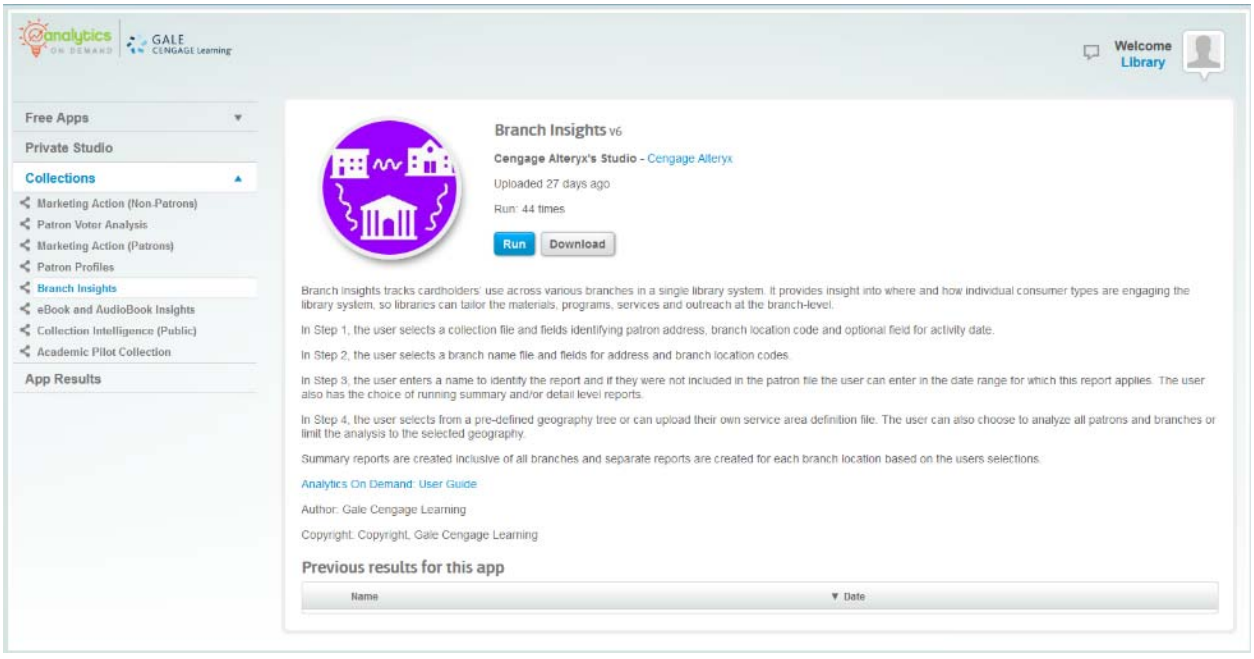
9.1 Branch Insights

This section provides a detailed description of the *Branch Insights* app. This app provides a list of existing patrons who have voted (or not voted) in previous elections in order for the library to provide outreach to encourage their patrons to get to the polls to support any ballot initiatives that concern their local library.

There are three input steps to the application. In Step 1 the user enters a library address. In Step 2, the user selects a patron file and fields identifying patron address, checkout metrics, and recency of checkout filters. In Step 3, the user selects a voter file and fields identifying patron address and up to three election activities. In Step 4, the user selects geographies to define a library service area.

9.1.1 Branch Insights – Initial Screen

The following screen appears when you click the *Branch Insights* app:



This screen provides the following key information:

- **Version number** – When the app is modified, the version number increments by one. Modifications may include enhancements, changes that accommodate input data files, and/or error corrections that are uncovered with repeated user access.

- **A summary description of the app** – "Branch Insights tracks cardholders' use across various branches in a single library system. It provides insight into where and how individual consumer types are engaging the library system, so libraries can tailor the materials, programs, services and outreach at the branch-level.

  In Step 1, the user selects a collection file and fields identifying patron address, branch location code and optional field for activity date.

  In Step 2, the user selects a branch name file and fields for address and branch location codes.

  In Step 3, the user enters a name to identify the report and if they were not included in the patron file the user can enter in the date range for which this report applies. The user also has the choice of running summary and/or detail level reports.

  In Step 4, the user selects from a pre-defined geography tree or can upload their own service area definition file. The user can also choose to analyze all patrons and branches or limit the analysis to the selected geography.

  Summary reports are created inclusive of all branches and separate reports are created for each branch location based on the user's selections.

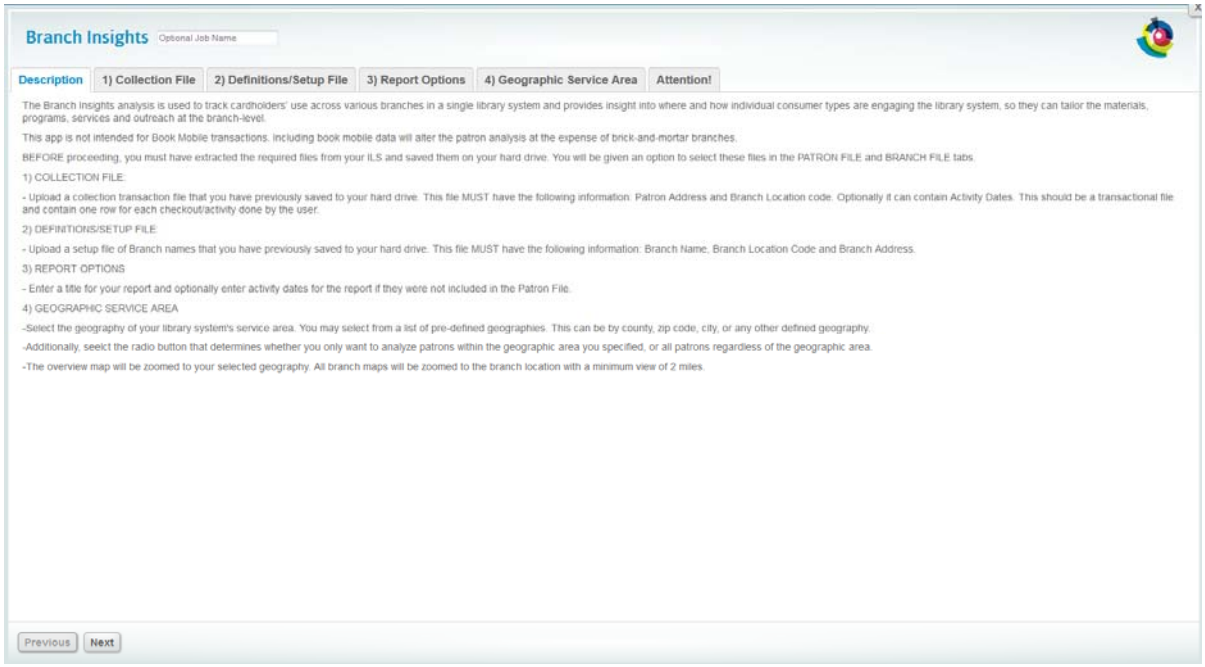
- **Link to Analytics On Demand User Guide** – clicking on this link takes you directly to the AOD user guide

- **Listing of previous reports** – As discussed in Section 2.2.2, this list includes previous results (that you did not delete) which are currently stored on the Amazon cloud server.

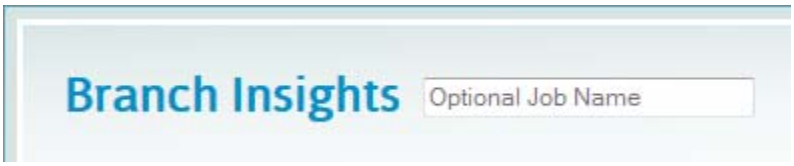
9.1.2 Branch Insights – Description

When you click

, the following screen appears. Note that the screen displays six tabs. (Some apps may have more or fewer tabs.) The **Description** tab explains what is required to run the app, including a high-level overview of the commands



This tab allows you to name an output report in the text box located in the top left portion of the screen:



By using unique names, you can easily identify previous runs if you have not deleted them. You can name a report by the options selected or by the date on which it was run.

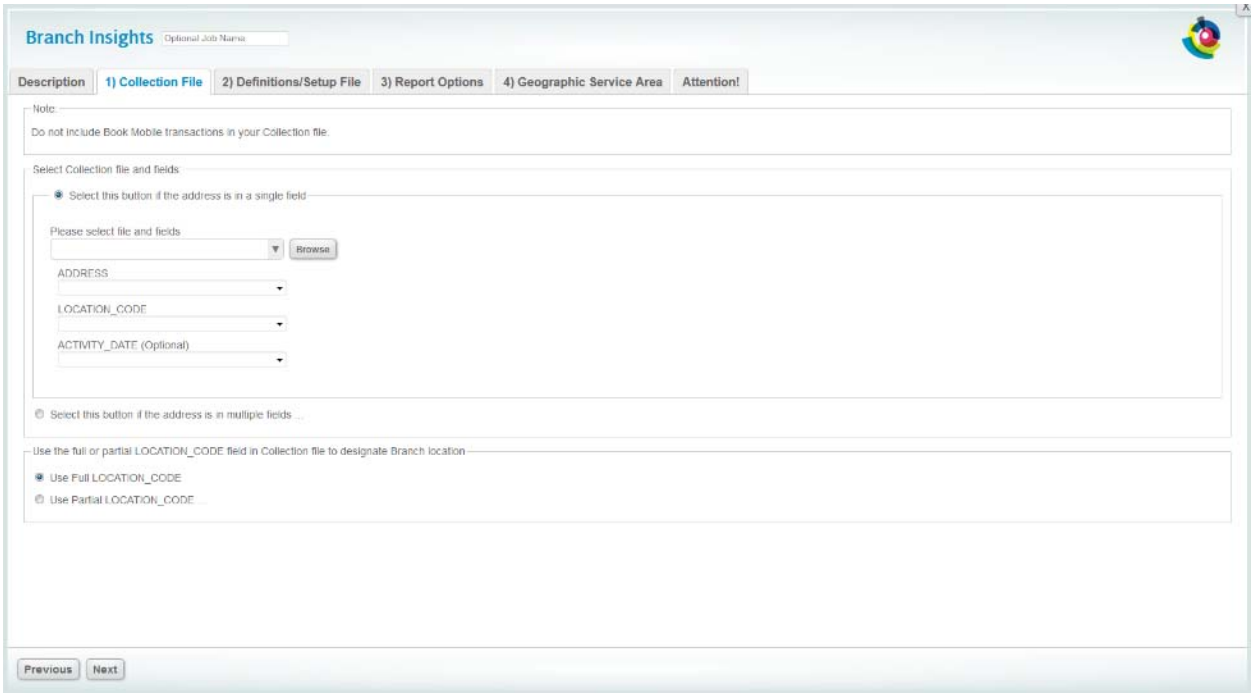
To proceed to the next tab, click the

button on the lower left side of the screen or the tab at the top of the screen.

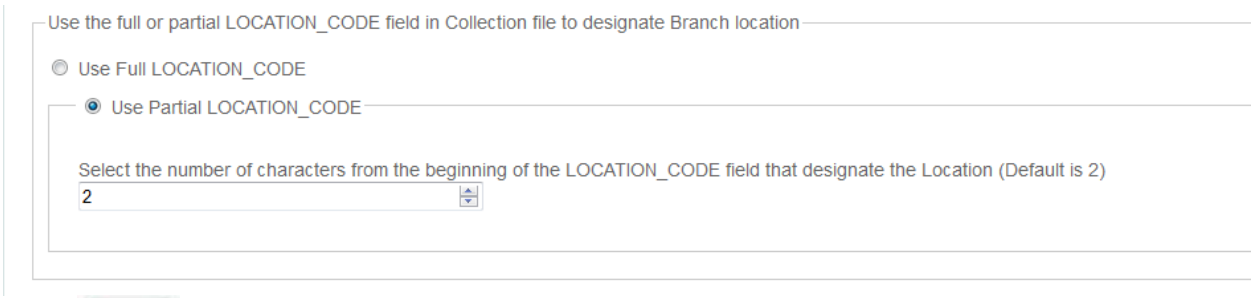
9.1.3 Branch Insights – Collection File

The **Collection File** tab provides the capability for you to upload a data file—typically an Excel file—from your ILS. This file requires two pieces of required information and one optional field: a) address, b) location code, which is usually a code that identifies the borrowing library branch and c) the activity date of the patron (an optional field).

The following screenshot displays an input file that includes patron address in one column. Depending on your ILS, the patron address may be extracted and placed in multiple columns—one/two for street address, one for city, one for state, and one for ZIP code. The view presented depends on the radio button you choose. The single-column address view is the default.



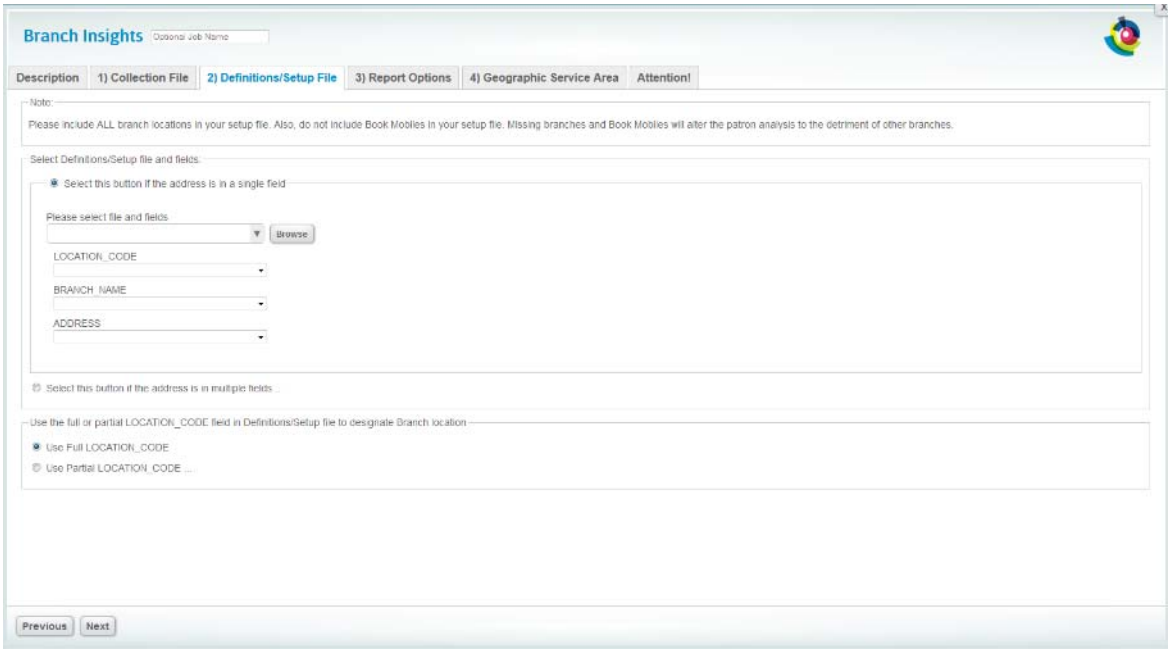
Note that once you upload the collection file, you will need to also identify whether the location code is a standalone field (a full location code) or whether it is part of code that identifies several different types of information (e.g. location and subject). The radio button defaults to a single code, however if your location code is the prefix of a much longer code identifier, select the PARTIAL LOCATION_CODE radio button and then select the number of characters that identify the location, as shown below:

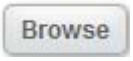


Click at the bottom left side of the screen to proceed to the next tab.

9.1.4 Branch Insights – Definitions/Setup File

Use the **Definitions/Setup File** tab to upload a manually created file—normally an Excel—that you created to identify all of your individual branch locations. This file requires two specific pieces of information: individual branch address (single or multi-column), and the location code that identifies that specific branch. All library branches must be identified in this file, else the app will simply drop a branch that is not identified in this file. The input screen is shown below.



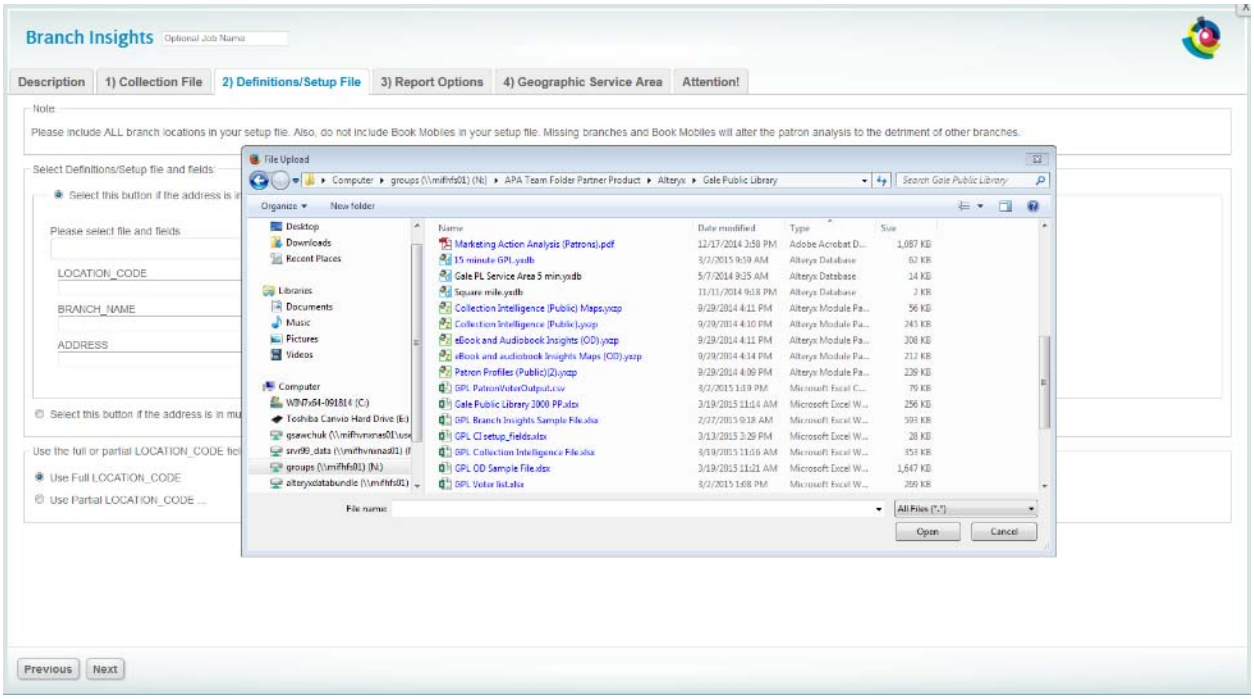
After you have selected the address radio button (that identifies whether your branch address is in one column or multiple columns), the next step is to click the 

button to browse input files located on your hard drive and/or network drive for uploading. This process is very similar to attaching a document to an email. After clicking **Browse**, a pop-up screen appears and asks you to identify the directory where the input file is located.

Note: You **must** have already defined your input file before accessing the app.

It is also critical that the format of the input file is identical to the sample file previously submitted to Gale during the validation phase of ordering. Changing the format may prevent the app from running properly. If any problems occur during running the app, contact Gale Customer Care.

As shown in the following screenshot, when the pop-up screen appears, you must select a file on your hard drive or network drive to upload into AOD.



After you select the file, AOD asks you to confirm that the spreadsheet it selected from the input file is correct by clicking OK.

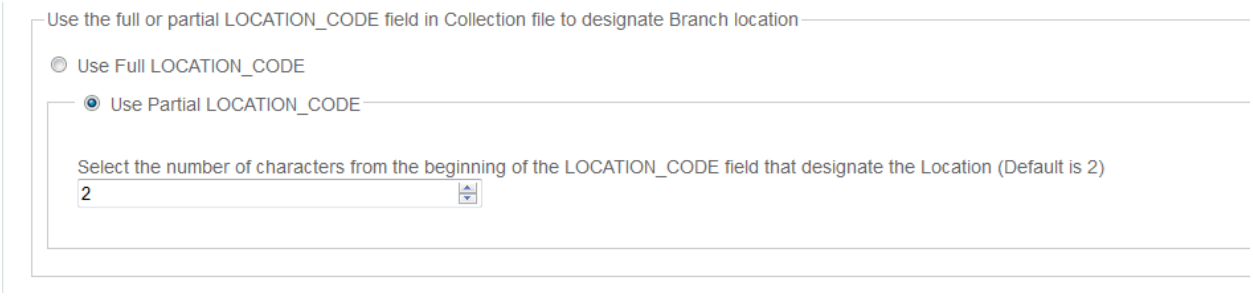
Note: Excel workbooks can contain multiple spreadsheets, which is why it is important to confirm the selection.

Once you have confirmed the selection, AOD loads the file into the app and attempts to match the columnar fields to the names on each of the fields identified in this tab (location code, branch name and address field(s)). If the heading in the input file is similar to the descriptive name on the screen AOD auto-selects that column. Verify that the app has selected the correct columns of data. If not, click the drop-down list **Please select file and fields** to deselect the choice made and replace it with the correct choice.

On fields that AOD has not auto-selected, click the drop-down list of the remaining fields and match the correct field in the input file to the required field.

After you upload your definition/setup file, scroll down the screen to select the format of the location code in your branch definition/setup file,

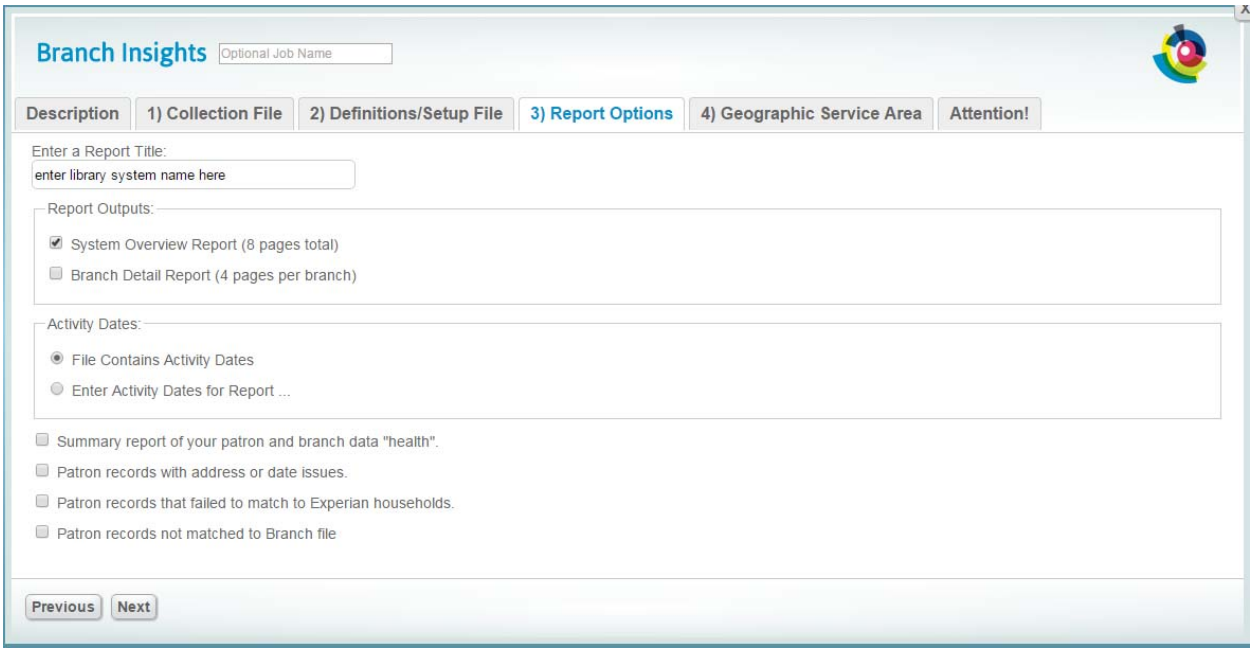
Note that once you upload the definition/setup file, you will also need to also identify whether the location code is a standalone field (a full location code) or whether it is part of code that identifies several different types of information (e.g. location and subject) – similar to what you did when you loaded the collection file. The radio button defaults to a single code, however if your location code is the prefix of a much longer code identifier, select the PARTIAL LOCATION_CODE radio button and then select the number of characters that identify the location, as shown below:



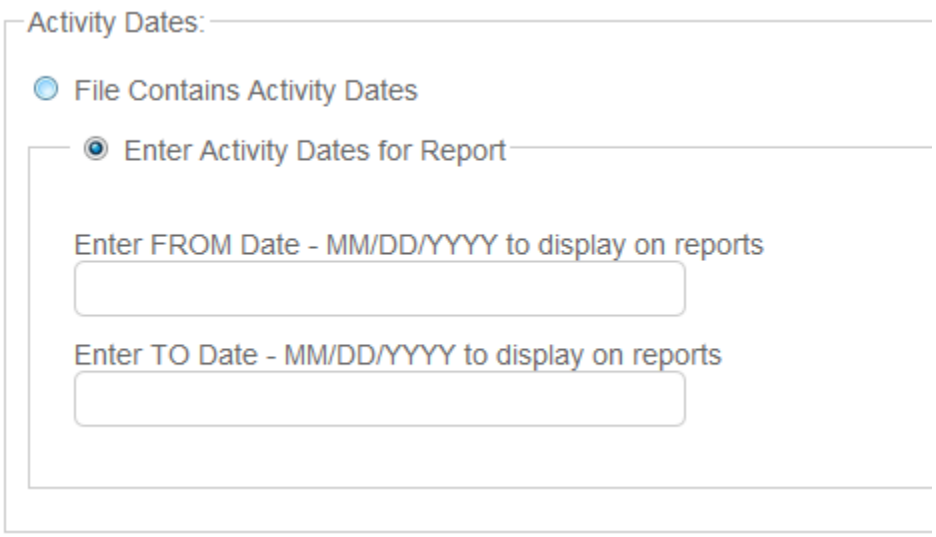
Next, click at the lower left side of the screen to proceed to the next tab.

9.1.5 Branch Insights – Report Options

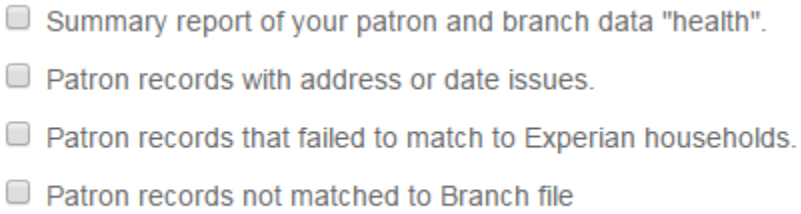
Use the **Report Options** tab to identify whether you want to run a system overview report, a branch detail report, or both, by selecting the radio buttons affiliated with each selection.



You must also select a radio button to tell the app whether your collection input file includes activity dates (recall this was an optional field) or not. If the activity date is NOT in the collection input file then you MUST input the range of dates by clicking on ENTER ACTIVITY DATES FOR REPORT:



The final options allow you to select any additional output you would like to see about the Patron and Branch data you have provided. We perform a thorough data cleansing and validation process at the beginning of each report and these options will help you identify where your data may need some additional work to produce better results.



There are four optional outputs available.

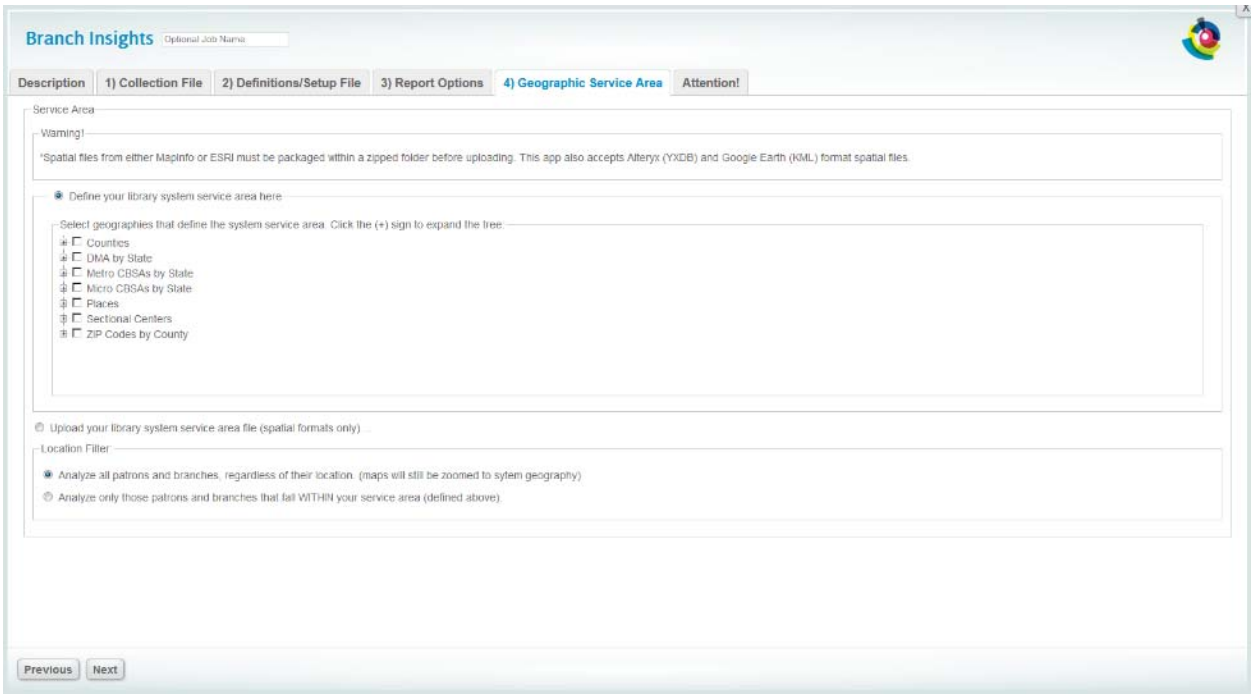
a) **Summary of your patron and branch data data "health"** – this will create a report outlining the number of records found in your patron and branch files with the number of good/bad records found as well as the number of records found on Experian. It will also tell you the reasons for any bad data that was found.
b) **Patron records with address or date issues** – this will create a downloadable file of all patron address records that were bad and the reason why they could not be processed.
c) **Patron records that failed to match to Experian households** – this will create a downloadable file of the patron addresses that could not be found on the Experian household file.
d) **Patron records not matched to Branch file** – this will create a downloadable file of the patron records that specify a branch location that was not included in the branch file.

Note: There are several reasons for Experian not having a match for a specific household. Among other things a consumer needs to be active at an address for some amount of time before Experian can profile them. The household might could be vacant or for sale. Excluding the Suite number in areas of high rise and multiple dwelling units lowers your match rate. And finally, the Experian data is updated quarterly so it may take time to work itself through the system.

After completing this step, click Next at the lower left side of the screen to proceed to the next tab.

9.1.6 Branch Insights – Geographic Service Area

Your final step is to identify the geographic area you want to analyze. Examples of geographies include a) the library's service area, b) surrounding geographies outside the service area (to analyze patrons who use the library but don't reside in the service area, c) smaller geographies, such as census tracts and block groups (to analyze specific neighborhoods).



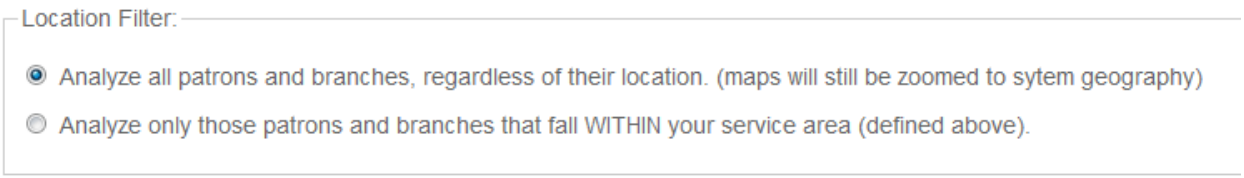
You can select geographies from the geography tree menu or upload a custom geography (GIS) spatial file. Spatial files from either MapInfo or ESRI must be packaged within a zipped folder before uploading. This app also accepts Alteryx (YXDB) and Google Earth (KML) format spatial files.. If you are loading a spatial file, click the OR Upload your library's service area file (spatial formats only) button and then click on Browse button and locate the **spatial file** in the directory you previously saved it and select it. When the file appears in the file window, move to the next filtering question, which appears after the geography tree.

After you select a geography, scroll down the screen and choose the final filter: whether to include or exclude patrons outside the geography selected.

Note: If you are interested in a county, do not select all its block groups. AOD calculates the smallest geography first and adds each individual selection to it. If you select all its block groups, calculations may take hours.

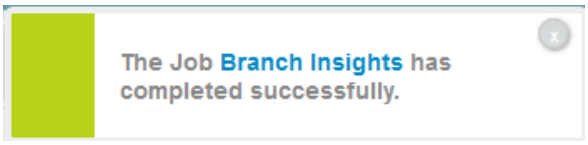
After you select a geography, scroll down the screen to the final filter: whether to include or exclude patrons outside the geography selected.

Finally, the **location filter** looks at whether patrons live inside or outside the library service area. The default includes all patrons, regardless of where they live. Clicking **Analyze only those patrons that fall WITHIN your service area (defined above)** includes patrons only if their addresses lie within the service area geography you defined earlier. Clicking **Analyze all patrons and branches** includes all patrons regardless if their addresses lies outside the service area geography you defined earlier.



After selecting the **patron filter**, click

at the lower left side of the screen to begin the analysis. When the analysis completes, the following message will appear on screen if you are still logged on:



Please note that it is not necessary to wait until the analysis completes. By clicking

on the upper right side of the screen, you can return to the original app screen and the analysis will run in the background.

You can also log out or execute another AOD app analysis. If you want to make minor modifications and re-run the analysis with a different filter, select the

button at the lower left side of the screen. All your information is saved and you can modify any earlier choices to re-run the analyis.